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Original Articles.

A CASE OF CHRONIC RHEUMATOID POLYARTHRITIS IN A CHILD.

By O. J. KAUFFMANN, M.D.,

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ELLEN W—, a girl, aged 8 years, recently an in-patient at the Queen's Hospital, was very small for her age, of the dark, fine, scrofulous type, with long eyelashes and flushed, shiny, polished-looking cheeks. She was practically a cripple as far as the lower limbs were concerned; in the arms there was some power of movement, and she knitted industriously and well, though slowly. She showed enlargement of nearly all the joints of the body, those of the toes on both feet and the maxillary joints being the only exceptions. The swollen joints were, generally speaking, of fusiform shape, not painful, not tender on pressure, not grating when the bone ends were pressed together, and all, with the exception of the right hip, permitted of a certain amount of passive movement. Volitional movement was impaired owing to the very great wasting of the muscles. The right hip was ankylosed and partly dislocated, and presented obvious osteophytic growth round the articulation. This was the only articulation which gave rise to much spontaneous

pain while the patient was under observation. The rest of the joints appeared to give her very little or no pain, though exact information on this point was difficult to obtain, owing to her patient and reticent character. To the touch all the enlarged joints were elastic, semi-fluctuant, and soft. Now and again the

FIG. 1.

right knee was hotter than the left, but, on the whole, there was no perceptible heat.

The spleen was palpably enlarged and extended below the ribs with inspiration, not tender.

The superficial lymph-glands all over the body, with the exception of the supra-trochlear and popliteal, were enlarged, varying in size

from that of a pea to a Spanish nut, not tender, and not showing any suppurative tendency.

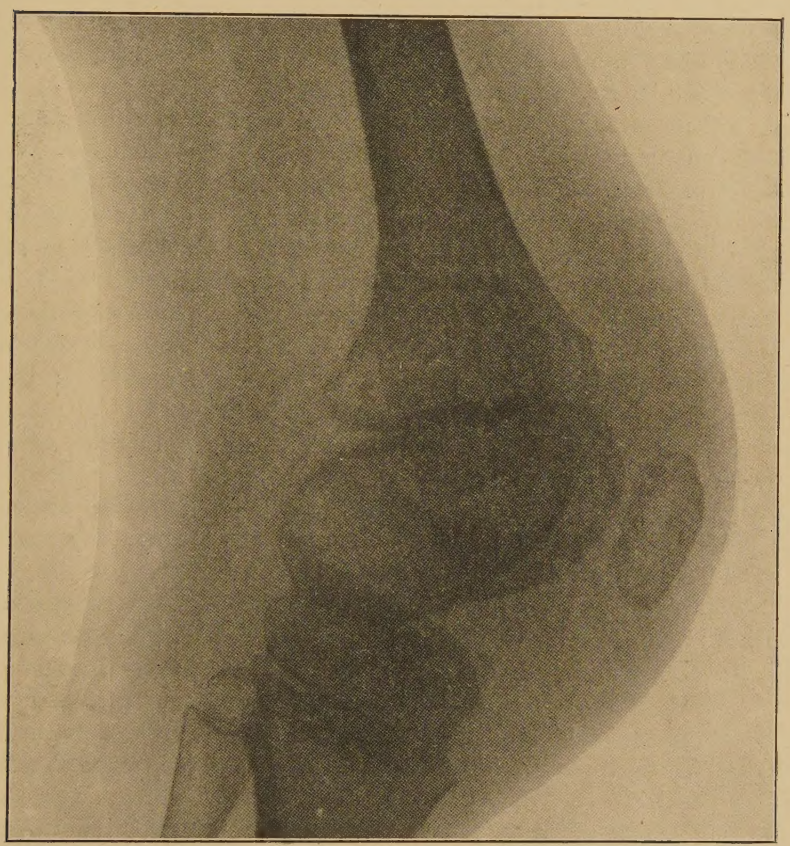
Liver moderately enlarged, not hardened.

No evidence of enlargement of the thymus.

The heart presented no abnormality, excepting a rate of 152.

In the *lungs* varying physical signs were noted from time to time

Fig. 2.



during the patient's stay in hospital which were strongly suspicious of tubercle, though at no time was there any evidence of cavitation; nor did she expectorate, nor even cough up any sputum. Twice the Calmette ophthalmo-reaction was tried, with negative result, and in view of this fact, and seeing that the pulmonary condition grew better rather than worse, I incline to attribute the varying physical signs to a wandering broncho-pneumonia.

The temperature during seven weeks was never steady, though, on the other hand, it was never high. It varied from 99° to 101° F. in the first three weeks; from 97° to 99° F. in the succeeding four weeks.

The urine consistently showed a heavy deposit of urates and a very faint haze of albumin, but no casts could be discovered.

The history was as follows: Up to the age of ten months the child had been strong and healthy. She had had three several attacks of pneumonia at one, two, and three years of age. At four she had rötheln, and shortly after had vague pains in the legs, not accompanied by any swelling of the joints. The enlargement of the joints did not occur till she was six, *i. e.* two years after the pains in the limbs had appeared; and wasting of the muscles—no doubt purely consecutive from the arthritis—appeared almost at once after the joints had commenced to enlarge. The articular and muscular condition had slowly increased since then, leading to such crippling that she could not stand. The general health, too, had slowly become poorer, although her appetite had always been, and still was, good.

The patient's mother had in childhood suffered from chorea, but this was the only point in the family history bearing upon the case.

Treatment proved, as was expected, quite useless. An elastic bandage applied above the right knee led to some enlargement of the circumference of that joint, though causing no pain, and, since the enlargement thus produced did not recede, no further attempt was made in this direction, and only general treatment by means of cod-liver oil and iron was kept up.

The case tallies very closely with one class of "rheumatoid arthritis in children," as described by Dr. Still. The suggestion of its being due to a chronic pneumonic condition lies close at hand, and is enforced by both the history of repeated pneumonia and the persistent pneumonic condition still present, although the features of the case do not resemble those ordinarily met with in "pulmonary osteo-arthritis."

The skiagrams of the wrist and knee (Figs. 1 and 2), kindly taken by Mr. Emrys-Jones, show the bulk of the enlargement to be due, not to bony overgrowth, nor to great swelling of the synovial membranes, but rather to inflammatory infiltration of the peri-articular structures.

A CASE OF GENERAL SUPPURATIVE PERITONITIS DUE TO GANGRENOUS APPENDICITIS AND FOLLOWED BY SUBPHRENIC ABSCESS; TWO OPERATIONS; RECOVERY.

By A. J. Cleveland, M.D., M.R.C.P.,
Hon. Physician, Jenny Lind Infirmary, Norwich.

A girl, aged 9½ years, was admitted under me on June the 11th into the Jenny Lind Infirmary for Children (Norwich). She was in very good health until six days before admission, when she complained of abdominal pain, chiefly over the appendix. Next day she had sickness and diarrhœa, the stools being yellow and frothy.

On admission she had all the typical signs and symptoms of a well-established general peritonitis—anxious expression, distended and resonant abdomen, not moving with respiration; muscles rigid. Temperature 101° F., pulse 148, respirations 60.

My colleague Mr. Everett saw her with me, and we decided on an immediate operation. He opened the abdomen through a median incision, and a quantity of pus escaped. There was a good deal of lymph on the intestines, which were considerably injected. A counter opening was made in the right loin, from which a quantity of pus was evacuated. As the child's condition was very critical only a minimum amount of swabbing of the peritoneal cavity with dry gauze sponges was done, and the child put back to bed. A brandy and hot water rectal injection was given. June the 12th.—She was decidedly better. Bowels not open. On June the 13th, the bowels acted freely after some calomel. Her respirations were still rapid, and on auscultating the chest coarse râles and rhonchi were heard at both bases. For the next five days the temperature varied between 102° and 99° F., the pulse-rate between 128 and 150, and the respiratory-rate between 30 and 48. The bowels acted well, and the child took nourishment fairly well, but although both wounds were draining freely her condition was still grave.

On June the 18th there was dulness at the right base, extending upwards in the mid-axillary line as high as the fifth rib, and falling to the normal limit of liver dulness in the middle line in front and behind. Over this area there was at first a patch of distant bronchial breathing with consonating râles, but by next day although the dulness remained unaltered the breath-sounds became normal and the râles disappeared. The child's condition remained

very little altered during the next ten days, except that on June the 22nd she complained of abdominal pain, and had some distension and tenderness, although both wounds continued to drain well.

On June the 28th the persistence of the pyrexia and the general condition of the patient pointed to her having a collection of pus somewhere which was not being drained. The physical examination of the chest did not reveal any cause for the symptoms in the lungs, and I therefore concluded that she had a collection of pus between the liver and the right diaphragm, which would explain the area of dulness already described.

On June the 28th Mr. Everett made an incision over the tenth rib in the posterior axillary line. The diaphragm was exposed and appeared quite healthy. It was incised and numerous adhesions found between it and the liver. On breaking some of these down a fair quantity of pus escaped. The liver appeared to be normal. The wound was drained, and the child made a slow but steady recovery. When seen in November she looked extremely well, and the abdominal wounds were firmly healed.

In every case of general suppurative peritonitis which I have examined in the post-mortem room I have found a collection of pus or purulent lymph between the liver and the diaphragm. Sometimes it appears to be due to a direct extension from elsewhere ; in other instances it is to the unaided eye distinct from the general inflammatory process. It is not peculiar to peritonitis following appendicitis.

Although in the case I have just described the rest of the peritoneal cavity was draining well the inflammatory focus above the liver had become shut off, and was undoubtedly causing a persistence of the child's symptoms. Directly it was opened the child recovered.

The other interesting point about the case to me is the fact that, although not operated on till the sixth day after the onset of the disease, the child recovered.

As to the diagnosis. At the operation it was clear that there was general peritonitis ; pus and turbid fluid welled up from every direction. The history of onset, the character of the peritoneal exudate, the completeness of the ultimate recovery pointed to the cause being the most probable one, viz. appendicitis, although the appendix was never actually seen.

A CASE OF RHEUMATOID ARTHRITIS IN A CHILD, AGED 2½ YEARS.

By J. Porter Parkinson, M.D.,
Senior Physician at the Queen's Hospital for Children.

Dorothy G—, aged 2 years and 4 months, was admitted under my care into the Queen's Hospital for Children, on September the 26th, 1908. The personal and family history were good; there was no history or evidence of syphilitic taint, or of tubercular disease. Three months before admission she began to suffer with pain and swelling of both wrists and the left ankle; she was confined to bed, and other joints, such as the knees and left ankle and elbows, became involved. She took food well, but wasted considerably, and as no improvement occurred she was brought to the hospital.

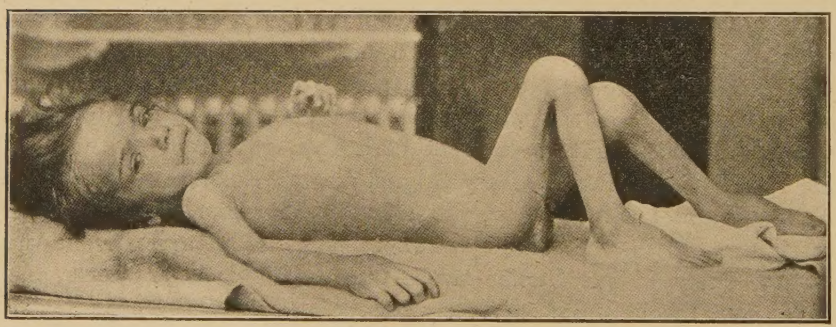
On admission she was pale, with an earthy tint of skin, anæmic, and wasted, weighing only twenty pounds. The skin was wrinkled and inelastic, and there was a brown staining of the deeper layers of the skin, diffuse on the whole, but here and there with detached creases on the dorsal surfaces of both feet, the front of the legs and the front and inside of the thighs, also on the adjacent part of the lower abdomen. This was identical in character, though not in distribution, with the staining seen in rheumatoid arthritis in the adult. The ankles and some of the tarsal articulations, wrists and knees, were swollen and extremely tender. There was some effusion into the joint cavities, but no grating on manipulation; there was also much peri-articular swelling extending above and below the articulations. It was soft and boggy to feel, but did not pit on pressure; the skin was slightly reddened. This swelling is well seen in the accompanying photograph. Skiagrams of the joints showed not the slightest changes in the bones.

The lymphatic glands in the groins and axillæ were much enlarged and tender, some being as large as a small walnut; they were elastic and freely movable. There was some beading of the ribs and general signs of rickets. The heart and lungs were normal. The abdomen was enlarged from flatus; the liver appeared of normal size, but the spleen extended four fingers' breadths below the costal margin and was unduly hard. The urine contained no albumin. Examination of the blood showed 30 per cent. hæmoglobin, with 1,000,000 red corpuscles and 5000 leucocytes to the c.mm. The temperature on admission was normal, but began to

fluctuate daily ; on September the 29th it reached 103° F., and though normal in the morning generally reached 101° F. in the evening.

The joint troubles continued, and by the middle of October the temperature began to show regular exacerbations lasting four or five days, with intervals of comparative apyrexia. Thus from October the 17th to the 22nd the evening temperature rose each evening to 104° F. ; from October the 22nd to the 27th it was normal ; from October the 28th to November 7th, except for one day, it rose each evening to 104° F. ; after this the rises were less high, though from November the 10th to the 17th it rose from 102° to 103° F. ; after this the fever abated. During the febrile periods all the symptoms were much more marked, the joint swellings increased, and the spleen and lymphatic glands also became larger.

Fig. 1.



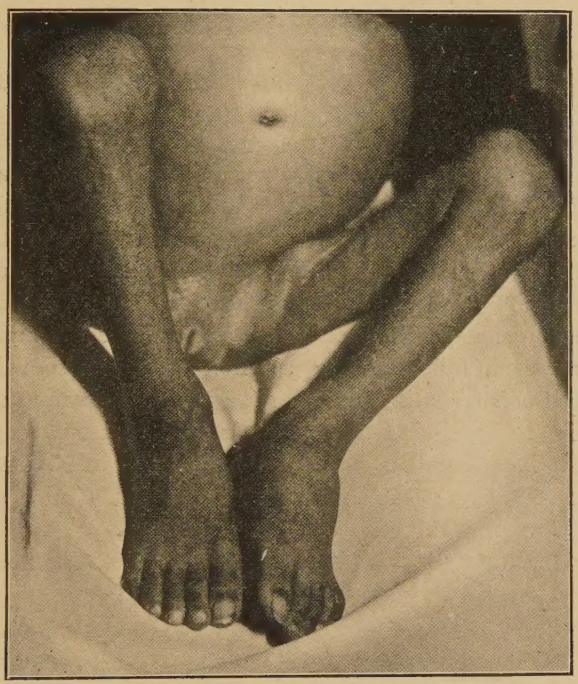
The child lay in a drowsy condition and seemed to be suffering from a general poisoning. After the temperature fell the spleen and lymphatic glands lessened in size, and by January, 1909, appeared to be nearly normal. The joint swellings also diminished, leaving great muscular weakness, but no tenderness nor adhesions. The child was in much better general condition, and the weight, which had fallen to eighteen pounds, rose to twenty-four pounds.

The drug which seemed most to influence the fever and the joint-swellings was salicylate of soda. Having seen the occasional value of rectal injections of anti-streptococcic serum in similar cases in the adult, these were also given, but appeared to have no effect on the course of the disease. Normal horse-serum was also tried with a negative result. No organisms could be obtained from the blood, but the fluid from the joints was not examined.

This case is a well-marked example of a rare disease in the child,

and as such seems worthy of record; the severe exacerbations appeared to point to a periodic auto-intoxication from one or other of the joints, as there was no other lesion to account for them; the gastro-intestinal canal was healthy, and there was no ear discharge or conjunctivitis or other source of infection. The teeth also were healthy.

Fig. 2.



Shows joint swellings, pigmentation of skin, and enlargement of lymphatic glands in left groin.

The pigmentation of the skin, which can be seen in the photograph, has, I believe, not been previously described in the child, but it shows another point of resemblance between the disease as it affects children and adults, and there can be but little doubt that the disease is the same in both, any slight differences being merely those incidental to the age of the patient.

PANCREATIC CYST IN AN INFANT.

By W. H. Maxwell Telling, M.D., B.S., M.R.C.P.,
Assistant Physician to the General Infirmary and to the Hospital for Women and Children at Leeds; Clinical Lecturer in Medicine in the University of Leeds; and

J. F. Dobson, M.S., F.R.C.S.,
Clinical Lecturer in Surgery in the University of Leeds, etc.

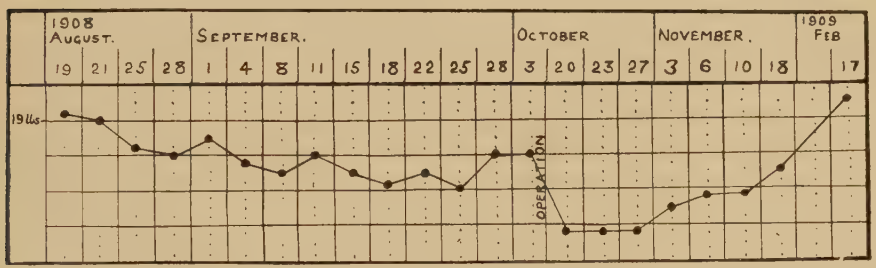
Pancreatic cysts, from their infrequence, are always of great clinical interest, and we have thought that the following case is worthy of placing on record from the very early age at which it was noted and from the successful result of the operation.

The child, a girl, was admitted to the Women and Children's Hospital on August the 18th, 1908, and was then aged 11 months. The mother stated that the child's abdomen had been noticed to be getting bigger for the past two months, during which time the child had been somewhat fretful and cross, and was occasionally feverish. It had been seen by a doctor at home, who, according to the parents, had either diagnosed or suspected consumption of the bowels. Up to admission there had been nothing wrong with the stools, and it had taken its food very well. On admission the child was in fair condition; the abdomen was a little full. The child was paler than normal but took its food well. The stools were normal. On more detailed examination of the abdomen the girth at umbilicus was found to be $18\frac{1}{4}$ in.; the distension was mainly centrally situated, but was by no means striking—that is to say, one could not have diagnosed the presence of a localised tumour from inspection. There was resonance in the flanks, a dulness in the umbilical region; these percussion effects were not altered by change of position. There was a little fever (100·2° F.) in the evening. The child weighed $19\frac{1}{4}$ lbs. These notes were made on admission by Dr. Mabel Ramsay, the house-surgeon.

When seen by one of us (W. H. M. T.) a few days after admission there could be palpated a deeply situated rounded tumour, approximately in the umbilical region, but so obscure was this at the time that its presence was doubted by several observers who were invited to examine the abdomen. The diagnosis of tuberculous peritonitis was thought to be most unlikely owing to the character of the swelling and the general appearance and good condition of the infant. It was decided to keep her under observa-

tion for a time. The slight fever declined gradually to the normal by August the 29th, and by that date the child's weight had also declined to 18 lbs. On September the 4th the abdomen measured $21\frac{3}{4}$ in. at the level of the umbilicus; the child had a little diarrhœa and was certainly losing ground, though not rapidly. On September the 16th the child was examined under anæsthesia, and a globular swelling, feeling like a cyst, could be palpated with certainty. There was no movement of the tumour on respiration, and practically no movement was possible under palpation. A diagnosis of abdominal cyst was made and an exploratory laparotomy was decided on. On October the 2nd the abdomen measured $22\frac{1}{2}$ in., and the cyst was now easily palpable without the aid of an anæsthetic. The tumour seemed to be about the size of a fœtal head.

October the 3rd.—Operation (J. F. D.) : Chloroform was adminis-



tered. The abdomen was opened by a mesial incision above the umbilicus and there at once came into view a large, smooth-walled cyst presenting between the stomach and the transverse colon. The pancreas was palpated throughout its extent, and it was found that the cyst took origin from this organ, near the head. It was considered inadvisable to attempt removal of the cyst and it was therefore drained. On opening it $1\frac{1}{2}$ pints (approximately) of milky fluid, slightly tinged with pink, escaped; the odour was slightly tainted. A piece of rubber tubing was put in the cyst cavity, sewn in, and the abdominal wall closed. The condition of the child was good throughout the operation.

Progress after the operation.—The temperature rose to 103° F. in the evening after the operation, and gradually declined to 100° F. by October the 12th, when there was a further rise to 102·5° F. which declined to normal on the 19th, and thence-after remained practically normal. The child's condition was fair for the first nine days after the operation, it took nourishment well, there was only

slight draining from the cyst, the abdominal distension had practically disappeared, and the temperature (as noted above) was steadily declining, until an attack of diarrhœa and vomiting, which lasted four days, caused the sharp rise noted above on the 12th. With the exception of this incident the child's progress towards recovery was uneventful. On October the 29th the tube came out, leaving a sinus about 1½ in. deep, with practically no discharge. By November the 9th everything was soundly healed. The child went home on November the 21st, apparently quite well. She was re-admitted to the hospital on February the 17th and her general health, as well as the local condition of the abdomen, was perfectly satisfactory.

Examination of the cyst fluid.—The fluid was milky, slightly tinged with blood, and had a faint, tainted smell; alkaline; sp. gr. 1025. On boiling became nearly solid, with coagulation of albumin; no sugar was present. No ferment action was obtained. Microscopically there were pus cells, some blood cells, and a quantity of homogeneous *débris*. No organisms were seen. There was no evidence of hydatid disease. Cyst wall showed evidences of a lining of columnar epithelium.

Though cysts of the pancreas have been noted as a congenital lesion they are extremely rare. Without an exhaustive investigation of the literature the youngest age at which, so far as we are aware, a case has been recorded is six months (Railton).* In our case abdominal enlargement was noted by the parents at nine months, so that it is practically certain that the cyst existed for some considerable time before this. Its rapid progress while under observation is also a noteworthy feature. The number of cases on record during infancy is too small to allow of our expressing an opinion as to whether this is a frequent symptom. In later life rapid enlargement is the exception rather than the rule. The successful result of the operation at this age is also very encouraging.

Diagnosis.—Before the abdomen was opened the diagnosis of abdominal cyst was made with confidence, but the nature and localisation of that cyst was a matter of uncertainty. Pancreatic cyst, of course, was suggested as a possibility, but opinion inclined to an omental or mesenteric cyst as being the most likely. Hydatid cyst at this age and undergoing this rapid progress was extremely unlikely. A tuberculous peritonitis was certainly excluded, and from the definiteness with which the cyst could be felt after a time a localised inflammatory effusion was most unlikely. The position

* 'Nothnagel's Encyclopædia,' English edition.

of the cyst in the mid-abdomen is one which is recognised, and is both described and figured in the recent work of Robson and Cammidge.* In many recorded cases the pancreatic origin of an abdominal cyst has been open to a certain amount of doubt, but in this case the situation in which the cyst presented, its immobility, the fact that it could be traced directly to the pancreas, and that it was free from all other structures, make this origin quite certain. The absence of ferments has been conclusively shown to be of not infrequent occurrence in certain pancreatic cysts; and in this case the fluid in other respects, together with the character of the cyst wall, was quite consistent with the diagnosis.

THE FREQUENCY OF PULMONARY TUBERCULOSIS IN CHILDREN.

By James E. H. Sawyer, M.A., M.D.Oxon., M.R.C.P.Lond.,

Assistant Physician, the General Hospital; Physician to Out-patients, the Children's Hospital, Birmingham.

I purpose in this paper to deal chiefly with phthisis of the adult type as it presents itself in children, because we are receiving now for the first time the reports of the medical inspectors of school children from all over the country, and in these reports the frequency of tuberculosis of the lungs varies considerably. So great is the discrepancy in the figures of the different examiners that one is naturally led to the conclusion that in many cases errors in diagnosis must have been made. Some of the reports of the medical inspectors point out that phthisis of the adult type in an early and latent stage is of common occurrence among school children, while others that it is very rare. The greatest number of cases are recorded in the report of Dr. Mary Hamilton Williams to the Worcestershire Education Committee, for in an examination of 1507 children, phthisis is diagnosed in 234, or 15·5 per cent.—75 among boys and 159 among girls. This great frequency of the disease in children she has also maintained in a paper, full of statistics, but containing many fallacious arguments, in the 'British Medical Journal.'† The number of instances of phthisis in children discovered by the medical officers who have examined the children attending the elementary schools

* 'The Pancreas: its Surgery and Pathology,' p. 496.

† 'Brit. Med. Journ.,' February the 13th, 1909.

in the city of Birmingham is far less, but still more than I think will be proved eventually to be the case. Dr. G. A. Auden, the medical superintendent, reports that pulmonary tuberculosis was diagnosed in 31 children as the result of an examination of 10,000 children—a percentage of 0·31. He also reports that there were 39 doubtful cases of tuberculosis of the lungs. Dr. Bostock Hill reports 14 cases in 3175 examinations in Warwickshire, or 0·44 per cent. In Dunfermline Dr. Bridges reports 3 cases in 2240 children, or 0·13 per cent.; in Derbyshire Dr. Sidney Barwise reports that 0·21 per cent. were found to be suffering from phthisis among 10,057 children; and in Wrexham among 1546 children Dr. D. L. Williams reports that 1·6 per cent. were affected. The following figures are taken from reports for the year 1906. Among 709 children at Oldham who were especially referred for examination Dr. Wilkinson found that 2·3 per cent. were suffering from phthisis, and among 1028 children at Blackburn, also especially referred for examination, Dr. Greenwood reported that 6·2 per cent. were phthisical.

This paper is based upon my examinations of 8000 children under the age of 15 years who attended the out-patient departments of the General and the Children's Hospitals, Birmingham, and upon 244 post-mortem examinations, which have been performed by myself, on patients dying in the General Hospital from all causes below this age. The ages of the children examined at the General Hospital ranged from a few days to 15 years, and those at the Children's Hospital to 12 years only. The following table gives the result of the examinations.

	General Hospital.	Children's Hospital.	Total.	Percentage.
Children examined	1615	6385	8000	—
Diagnosed as phthisis of the adult type	9	6	15	0·19
Doubtful cases of phthisis of the adult type	7	4	11	0·14

Of the 15 children in whom a diagnosis of phthisis was made, 4 have already become quite well again, so that it may be fairly presumed that the lung affection was not of tuberculous origin. The condition of another of these children has also improved; the illness was of long duration, and there was frequently a little expectoration, which when examined on one occasion was not found to contain tubercle bacilli. This patient does not at the present time seem to be suffering from phthisis, but from a mild form of bronchiectasis. The number of cases in which phthisis was diagnosed is reduced, therefore, to 10, or 0·125 per cent. There were 11 other children in whom the result of the first examination left a doubt as

to whether phthisis was present or not. One of these was considered later to be suffering from bronchiectasis, while many of the others improved under treatment and were eventually lost sight of. All the others became quite well, and so seemed to disprove that they had ever had phthisis.

There were other cases of tuberculosis of the lungs, but in them it was either associated with tuberculous lesions elsewhere in the body, or the condition followed a broncho-pneumonia which was tuberculous from the beginning. There were at least twelve cases of generalised tuberculosis in which the lungs were affected, but I do not know the exact number, as most of them were admitted directly into hospital as in-patients, without there being any accurate record as to the lung condition in the notes of my out-patients. In two cases of tuberculous peritonitis which were treated as out-patients there was undoubtedly tuberculous affection of the lungs. Of other children suffering from tuberculous peritonitis who were admitted as in-patients some were subsequently shown to have the lungs involved. There were three cases of broncho-pneumonia, which on account of the extreme emaciation of the children and the duration of the illness, were considered to be tuberculous.

A large proportion of the children attending at a hospital are naturally below the school age, but if only 10 out of 8000 of these children, all of whom were suffering from some illness, had phthisis of the adult type, a percentage of 0·125, it must naturally follow that a much smaller number suffering from this pulmonary affection will be found in school children of whom the great majority are in good health.

The figures recorded above show an important point, and that is, when phthisis occurs in children it is present in the older ones. Out of 1615 cases at the General Hospital with an age limit of 15 years there were 9 cases, and out of 6385 at the Children's Hospital with an age limit of 12 years there were only 6 cases. It is extremely rare to find phthisis under 10 years of age, and the greater number of the cases at the General Hospital were just under 15 years of age.

Although I cannot prove it by actual figures, yet I am of the opinion that tuberculosis of the lungs, when present in children, occurs far more frequently in an acute than in a chronic form. Pulmonary tuberculosis in children is, in the great majority of the cases, either a part of a generalised tuberculosis in which the condition in the lungs is one of miliary tuberculosis, or it is a tuberculous broncho-pneumonia. The latent phthisis which is found in

adults is very rare in children, and I feel sure that I have more often diagnosed it to be present when it is not there, than that I have missed it when it existed. I think that a very fair estimate among all children up to the age of 15 years attending at the out-patient department of a hospital would be about 1 in 1000. The children suffering from phthisis go from one hospital to another and so tend to swell the numbers of individual observers. If a fair proportion among out-patients be 1 in 1000, a much smaller proportion should be present among children at school, and yet the returns of the medical inspectors of school children show even an increased proportion of phthisis among their children than is found at the hospitals.

Post-mortem evidence is of far more value than the evidence which can be obtained from clinical examination, and therefore I have made an analysis of 244 post-mortem examinations which I have performed myself upon children dying under the age of 15 years during the two years I was pathologist at the General Hospital. There were 22 cases in which tuberculosis of the lungs was found, and the following table gives the result of the post-mortem examination in each of these cases.

GENERALISED TUBERCULOSIS (13 cases).

No.	Sex.	Age.	Condition of lungs.	Bronchial glands.	Mesenteric glands.	Other organs affected.
1	M.	3	Miliary tubercles, numerous small foci of caseation, and in places recent small cavities	Affected	Affected	Tuberculous peritonitis, miliary tubercles, liver, spleen, and kidneys.
2	M.	4½	Miliary tubercles only	,,	,,	Liver, spleen, peritoneum, meninges.
3	M.	$\frac{3}{12}$	Miliary tubercles only	,,	,,	Meninges, intestinal ulceration.
4	M.	1	Miliary tubercles, small cavity lower lobe on right side, recent	,,	,,	Liver, spleen, kidneys, peritoneum.
5	F.	1½	Miliary tubercles only	,,	,,	Liver, spleen, kidneys, peritoneum, meninges.
6	F.	4	Miliary tubercles only	,,	,,	Widely disseminated.
7	F.	$\frac{10}{12}$	Miliary tubercles	,,	,,	Widely disseminated, meninges.
8	M.	13	Miliary tubercles, small foci of caseation	,,	,,	Peritoneum.
9	F.	½	Miliary tubercles, large cavity lower lobe of right lung	,,	,,	Widely disseminated.
10	F.	$1\frac{4}{12}$	Miliary tubercles only	,,	,,	Widely disseminated.

GENERALISED TUBERCULOSIS—*continued.*

No.	Sex.	Age.	Condition of lungs.	Bronchial glands.	Mesenteric glands.	Other organs affected.
11	M.	$1\frac{3}{12}$	Miliary tubercles, large caseous mass in apex of lower lobe on left side. Pleuritic adhesion left side	Affected	Affected	Peritoneum, spleen, liver.
12	F.	5	Miliary tubercles only	,,	,,	Middle-ear disease, meninges, peritoneum, salpingitis.
13	F.	12	Miliary tubercles only	,,	,,	Tuberculous ulceration of intestines, peritoneum.
			TUBERCULOUS MENINGITIS (3 cases).*			
1	F.	8	Few calcareous nodules apex of right lung. Old pleuritic adhesions at base of right lung	Affected	Normal	Normal.
2	F.	7	Miliary tubercles. One large caseating area in upper lobe of right lung	,,	Affected	,,
3	F.	3	Miliary tubercles. Small cavity at apex of each lung and lower lobe of left lung	,,	,,	,,
			TUBERCULOUS BRONCHO-PNEUMONIA (2 cases).			
1	F.	$\frac{10}{12}$	Caseating areas scattered throughout each lung uniformly	Affected	Normal	Normal.
2	M.	$1\frac{1}{2}$	Broncho-pneumonia, ? tuberculous	,,	Affected	,,
			OTHER CONDITIONS (4 cases).			
1	M.	8	Calcareous nodule apex of right lung. Old pleuritic adhesions, right apex	Normal	Normal	Tuberculous cerebral tumour.
2	F.	6	Fibrosis of lungs. Upper lobes many small caseating foci. Brown induration lower lobes	,,	,,	Dilatation of right side of heart.
3	M.	$2\frac{1}{2}$	Caseating nodule size of large pea, apex of left lung	Affected	,,	Tuberculous abscess of neck.
4	M.	$1\frac{10}{12}$	A few caseating foci in lower lobe of right lung	,,	,,	Inquest. Perforation of supra-orbital plate by knitting needle, septic meningitis.

* Five of the cases with generalised tuberculosis suffered also from tuberculous meningitis, so that there were eight cases in which the meninges were affected.

In a letter to the 'British Medical Journal'* I stated that there were only 19 cases of tuberculosis of the lungs in my series of 244 post-mortem examinations, but upon going through them carefully again three others were discovered in which the lungs were affected; these have been placed last in the above table.

The condition of the lungs in the cases of generalised tuberculosis was of recent origin in every instance, and does not seem to have been the starting-point for the dissemination of the tubercles. The disease in the bronchial glands was of much longer standing in many of the cases, and it is very probable that the generalised tuberculosis originated from them. The only case in which a fairly large tuberculous cavity in the lungs was found was in a child, aged 6 months, so that considering the age of the patient the disease could only have been of short duration. In the two cases of broncho-pneumonia the disease was again acute.

In the remaining seven cases, one child was aged $2\frac{1}{2}$ years and another 1 year and 10 months, so that the disease in the lungs can scarcely be described as chronic. In another child, aged 3 years, with tuberculous meningitis, although the meningeal condition may have been secondary to the disease in the lungs, yet the appearance of the lungs suggested a recent infection. There therefore remain four cases in which the pulmonary tuberculosis can be described as at all chronic. Of these four cases, only the first child, who died from tuberculous meningitis, and the one who suffered from a cerebral tumour of tuberculous origin, can have suffered from pulmonary tuberculosis for any length of time, and only these two appear to present the condition which corresponds to that found in phthisis when occurring in adults. The small caseating foci found in the girl, aged 6 years, with fibrosis of the lungs were of recent origin, and were due to a terminal infection in a fibrosis which was evidently not due to tuberculosis. It is a remarkable coincidence that in one child who died from septic meningitis, due to perforation of the right supra-orbital plate by a knitting needle, recent caseating foci were found in the lower lobe of the left lung; but it must be remembered that this was one only out of 244 cases. In none of the others, except one of those suffering from broncho-pneumonia, was tuberculosis found only in the lungs and bronchial glands.

In 244 cases of children dying under the age of 15 years, there were found, therefore, at the post-mortem examinations only two cases in which the condition could be described as phthisis of the

* 'Brit. Med. Journ.,' vol. i, 1909, p. 568.

adult type, and in all the other 20 cases of tuberculosis of the lungs the disease was either due to an acute affection or one of a comparatively short duration.

It is only fair to add, however, that patients suffering from phthisis are not usually admitted into the General Hospital, Birmingham, except for some urgent reason; but when we consider how very frequently phthisis and evidence of past tuberculosis of the lungs are found in the post-mortem examinations of adults, and that it was only in two cases out of 244 children under 15 years of age that a condition at all comparable with the chronic phthisis of adults was discovered, we must conclude that phthisis is a rare disease during childhood. We must conclude also from the results of the above post-mortem examinations that pulmonary tuberculosis in children presents itself either as part of an acute disseminated tuberculosis, in which the lung condition is also acute, or as a broncho-pneumonia of short duration which is tuberculous from the beginning. I have therefore formed the opinion that the latent and chronic form of phthisis as found in the adult is a rare disease in children, and my opinion is based upon my own experience from post-mortem examinations and from clinical observations on even more cases than those analysed in this paper. At one time I used to consider that many children suffered from phthisis whom I proved subsequently to my own satisfaction did not. Some of the examiners of school children seem to be now going through this stage of over-estimating the prevalence of phthisis among children, and I am convinced that when they examine again these children later on they will come to the conclusion that their first diagnosis was not a correct one.

The Royal Society of Medicine.

SECTION FOR THE STUDY OF DISEASE IN CHILDREN.

Friday, March the 26th, 1909, *at* 5 *p.m.*

Dr. CAUTLEY *in the Chair.*

Notes of a Peculiar Form of (?) Word-deafness successfully treated by the Oral Method were read by Mr. MACLEOD YEARSLEY. D. B—, aged 11 years, seen at a deaf centre on December the 21st, 1908. She had been at the deaf school for three years, and her condition on admission was as follows: "Has two brothers and three sisters normal.

Has only vowel hearing, and can produce no words ; apart from hearing and speech she is normal and more intelligent in work than a deaf child of her age." She was examined in February, 1908, by Dr. Ernest Jones, who noted as follows: "Frightened and nervous. Relies apparently on lip-reading, but hears whisper at five feet, obeying 'pick up your glove' uttered behind her back ; is, however, very uncertain and doubtful about all commands. Spontaneous speech slipshod and indistinct, but reproduced speech quite clear. Using test words and comparing results with lip-reading to those when only hearing is allowed there was always a tendency to replace 'sh' by 's' much more marked with lip-reading; d and g and n and l are often mistaken too."

In November, 1908, she was examined by Dr. Thomas, who reported on the striking difference between heard speech (which is merely repeated by echolalia) and seen speech (lip-reading), which is immediately answered rationally. The following instances will show this difference :

Q. What is the time ? (by ear only).
A. What is the time ? (mumbled without intelligence).
Q. What is the time ? (lip-read).
A. Immediately looking at the clock—Three o'clock.
Q. What is your father doing ? (lip-read).
A. Gone to work.
Q. What is your mother doing ? (by ear only).
A. Echolalic words.

The word-deafness apparently prevented the higher centre being effective, and the child could only repeat words heard without comprehending their meaning, but she had now learned to understand by lip-reading. On further examination many interesting points came out, thus :

(Aural) *Q.* What is the number of *your* house ? (by ear).
A. What is the number of *my* house (but no attempt to reply to the question).
Q. How many brothers and sisters have *you* ? (by ear).
A. How many brothers and sisters have *I* ? (but no attempt at answering the question).
(Visual) *Q.* What is your sister's name ?
A. Bertha.

The alteration in the pronoun marks an advance on mere echolalia. This substitution of the correct pronoun is especially taught in deaf schools. On further examination it was found that after she had repeated (echolalia) a question, if interrogated by lip-reading without the question being put again she could answer it, thus :

(Aural) *Q.* What is the number of *your* house ?
A. What is the number of *my* house ?
(Visual) *Q.* Well ! tell me.
A. Forty.

Again :

(Aural) *Q.* How far away do *you* live ?
A. How far away do *I* live ?
Teacher (by eye).—*Q.* Well ! tell him.
A. Not very far away.

The child was evidently using some subconscious action. The motor centre being roused by echolalia, by directing attention to this the meaning of the phrase was perceived. Telling the child not to repeat the question, but to think of it and answer, the following resulted :

(By ear) *Q.* What is your brother's name?
A. What is my brother's name? Willie.
Q. When is your birthday, Dorothy?
A. When is my birthday, Dorothy? December the 30th.
Q. When did you say your birthday was?
A. When did you say your birthday was? December the 30th.
Q. Do you like cake?
A. Do I like cake? Yes.

The child was now given to understand that she was on no account to repeat the question, but to think carefully of what she heard. She found great difficulty in doing this, but after pondering some time a correct answer was obtained without the echolalic motor response being evoked aloud. It was evident that considerable restraint had to be exercised to prevent this, and every now and again, in spite of instructions, the echolalia recurs to words heard, but never to words seen.

She was next examined by me on December the 21st, 1908, when I first saw her and carefully tested her hearing. The meatus both contained large plugs of cerumen, which I removed. Both tympanic membranes were normal in texture, with good light reflexes, and of normal mobility. The tonsils were very slightly enlarged, the nasal chambers and post-nasal spaces normal.

Functional tests: Acoumeter, right 4 ft., left 3 ft.; ordinary voice, right 27 ft., left 27 ft.; whisper, both 2 ft.; Rinné, both negative to C and C_2; bone-conduction to C fork, both normal; Edelmann Galtonpfeife, both ears detected a whistle of 50,000 D.V. By air-conduction she could not hear 3C16 and 2C32 with either ear; perception to all other forks, from 1C64 to C_t2048, was diminished on both sides, C128 being diminished over − 35 secs.

I found that she could answer questions in ordinary speech with her back turned towards me, but that when I tested her with the whisper she repeated my questions by echolalia, showing that the auditory centre is still not under complete control. Her school work shows a few deaf-mute characters, although it has greatly improved in this respect during the past year.

In this girl's case no language was acquired until lip-reading was established, and it is evident that the quickest and most direct route to her consciousness is by the visual centre. Questions heard are repeated by echolalia, but now she corrects her pronouns subconsciously. If special attention is directed to the motor response to questions heard consciousness can be attained and a correct answer given. With great effort heard phrases are understood without motor response being interposed, but not easily; often with error and often forcing the motor response in spite of attempted inhibition. It seems difficult to explain this case on any hypothesis save that of weakness of the auditory centre.

A Specimen of a Primary Round-celled Sarcoma of the Suprarenal was shown by Dr. H. C. Mann. It was removed from a child, aged 2 years. It had invaded the pericardium and the left lung. There were secondary growths of the parietal pleura, the cervical glands were sarcomatous, and there were deposits in both orbital plates of the frontal bone, in the right parietal bone, and the sternum. During life there was anæmia, and a splenic tumour and enlarged cervical glands. Later a large tumour was palpable in the abdomen; this tumour moved well with respiration, and was apparently splenic. It was subsequently found at the autopsy that the spleen, which was somewhat larger than normal, lay on the anterior surface

of the tumour. The spleen was not invaded, and the corresponding kidney was free from growth. The leucocyte count was 15,000 per c.mm.

The Brain from a Case of Cerebral Diplegic Spasticity, which had been shown to the Section on February the 20th, 1909, was exhibited by Dr. Edmund Cautley. The whole of the frontal and parietal regions was converted into a bilateral cystic form, bounded mesially by a wall containing a moderate amount of brain substance. According to the history, the child had been healthy till the age of seven weeks, and then had an illness which could be accounted for as encephalitis or meningitis. The post-mortem appearance made it more probable that the condition was congenital, dependent on developmental error in the prosencephalon.

Dr. Langmead said that there was a specimen in the Museum of Great Ormond Street Hospital which closely resembled this case. It showed some narrowing of the small cerebral vessels.

Dr. George Carpenter said he had not seen anything quite like the specimen. In the last 'Reports of the Society for the Study of Disease in Children,' vol. viii, 1907–08, pp. 165–170, however, he gave under the heading of congenital syphilis in the special discussion on that subject notes of a case which had sclerosis of its hemispheres in the motor area on both sides and elsewhere. It happened many years ago, and it was difficult to recall on the spur of the moment the exact post-mortem appearances. On removing the skull-cap he found a multilocular cystic condition very similar, but not nearly to that extent. On opening the cyst the underlying convolutions were found to be atrophied, but they had not completely disappeared like the case exhibited. Microscopically there was found to be sclerosis of certain convolutions, and he handed his microscopical specimens to Dr. Ernest Jones, with the request that he would make an independent report upon them. Dr. Jones's opinion was that it was syphilitic, which coincided with his own views. During life the child was spastic and had extreme head retraction. It was an infant, aged about 5 months, and had atrophic patches with choroid, which latter he regarded as due to syphilis.

A Specimen of Congenital Heart Disease was also shown by Dr. Edmund Cautley, showing transposition of the aortic and pulmonary artery. The right ventricle was the larger and gave off a normal aorta, from which the great vessels arose by a common origin. The left ventricle gave off the pulmonary artery, which was stenosed on account of two of its valves being adherent. There was a small opening in the interventricular septum and the foramen ovale was patent. The ductus arteriosus was normal. The child lived till eleven months old, showing moderate cyanosis and clubbing. The heart was enlarged to the right of the sternum. There was a systolic pulmonary murmur, and a systolic murmur heard at the apex and behind.

A Female Child, aged 7 years, with Congenital Heart Disease was shown by Dr. Jex-Blake. She had a good colour and weighed twenty-eight pounds. Over the pulmonary area a continuous murmur could be heard, loudest during systole. It could also be heard over the whole chest, back and front.

Dr. Whipham thought there were one or two small glands to be felt in the neck. If the murmur was not due to glands he would agree that it was caused by a patent ductus arteriosis.

Dr. G. le B. Turtle asked whether the murmur varied in intensity from time to time. That was so when it was due to enlarged glands.

The Chairman thought that it was a purely systolic murmur, and was inclined to ascribe it to some pulmonary stenosis and patency of the interventricular septum than some other defect, because there was so much hypertrophy. The child had not grown well, which he thought meant a bad prognosis.

Dr. Jex-Blake replied that the murmur had not been noticed to grow louder or softer at different times.

A Case of Congenital Malformation of the Heart, showing a patent ductus arteriosus with bicuspid aortic valves, was shown by Dr. George Carpenter. The child died at the age of three months. During life there

was a systolic murmur, best heard over the third left space just inside the nipple line conducted towards the left clavicle. The left side of the heart was the larger. The right ventricle was dwarfed. The foramen ovale was closed.

A Pathological Report upon the Specimen of Congenital Cystic Disease of the Kidneys showed at the Section on January the 22nd, 1909, was given by Dr. Whipham. The sections showed small cysts with a great increase of connective tissue. The tubules were mostly dilated but many were contracted. Glomeruli were somewhat contracted, but Bowman's capsules were dilated. The arteries were thickened. The pancreas showed some fibrosis and thickening of its vessels. The bile-ducts of the liver were dilated and convoluted. The spleen showed an excess of connective tissue.

Dr. Parkes Weber thought that the spaces in the portal fissures might be blind spaces and not dilated bile-vessels. In that case the liver was an example of cystic liver.

Transparencies and Photographs of a Case of Bulbous Purpura following Impetigo in a boy, aged 4 years, were also shown by Dr. T. R. Whipham. There was no history of hæmophilia or of syphilis in the patient or his family. The fluid from the bullæ contained degenerated blood-corpuscles, but no growth of organisms could be obtained by cultivation. From the impetigo lesions a mixed growth of *Staphylococcus albus* and *citreus* and streptococcus was obtained. The patient was given boracic baths, and the bullæ either were punctured or burst spontaneously, leaving deep sloughing ulcers. Under treatment with hydrogen peroxide, chinosol baths and balsam of Peru dressings the ulcers cleaned and the condition was now cured.

A Case of Transposition of the Viscera in a girl, aged 8 years, was also shown by Dr. Whipham. There was a mitral systolic murmur at the heart's apex. The child had had chorea twice.

The Chairman thought that such cases were not so uncommon as one was led to believe in books. He believed that prognosis of life was just as good as if the heart were not transposed.

Dr. F. J. Poynton and Dr. Langmead thought that if the heart was on the right side of the body there was greater liability to endocarditis.

Dr. Parkes Weber asked whether proposers for life assurance should be rated if the viscera were transposed?

Dr. Whipham thought not.

A Case of Ankylosis of both Hip-Joints ascribed to Scarlet Fever, and **a Case of Syphilitic Osteo-periostitis** were shown by Mr. O. L. Addison.

The Chairman asked what treatment had been adopted, and Dr. E. I. Spriggs asked whether the tissues or fluids had been examined for the spirochæte.

Mr. Addison replied that after operation the general conditions had improved under mercury and iodide. There was still a sinus over the tibia. The spirochæte had not been looked for.

A Case of Congenital Symmetrical Swellings on both Heels in a girl was shown by Dr. F. J. Poynton. His view was that they were lipomata.

A Microscopical Specimen of the Liver from a Case of Icterus Neonatorum in a child, aged 19 days, was shown by Dr. George Carpenter. She became jaundiced on the second day. The navel was healthy; the stools were green; there was a systolic murmur over the left pulmonary area and in the left axilla. Post-mortem the liver was not enlarged, but its section was a deep mahogany colour, in which no liver lobules could be seen. As far as the bile-ducts could be traced they were empty and not obstructed. Microscopically the liver-cells were crammed with bile-granules of an olive-green colour. The bile lacunæ were filled with inspissated bile, and the fine bile-capillaries, the channels produced by those bile-cells in actual contact, were in some parts filled with the same material. Many of the small bile-tubes in the portal canals contained bile-casts in their interiors, mostly olive-green in colour, but sometimes yellowish. Dr. Carpenter also briefly related the histories of three other cases of brothers and sisters, one of which he had seen in consultation with Dr. Finch Haines.

All of the infants had a plentiful supply of bile in their motions; they were well nourished, but deeply jaundiced, and died a few days after birth. He said he took the opportunity of recording these cases as stepping-stones to the study of icterus neonatorum, and with the hope that the communication would stimulate the members of the Section to research in this department of medicine, which, judging by the records in the 'Reports of the Society for the Study of Disease in Children,' had excited very little interest.

Dr. E. I. Spriggs said it was not necessary for there to be gross blockage for the production of obstructive jaundice, not only in the condition of toluylendiamin poisoning, but in acute yellow atrophy and phosphorus poisoning. It was probable that the jaundice occurred because of the catarrh of the small bile-ducts. That might also account for liver-cells containing particles of pigment.

Dr. Poynton referred to two cases which he brought before the Section two years ago, in which the children got well. He thought that in cases of prolonged jaundice it was a mistake to vaccinate the child. He did not think that such cases were common.

Dr. Parkes Weber referred to cases in which several children of the same parents had had jaundice, some of them having died.

A Paper upon Three Cases of Henoch's Purpura was read by Dr. Porter Parkinson. Case 1 was a boy, aged 8 years, who suffered from pain in the legs and abdomen, and a purpuric rash over most of the body and limbs. The spleen could be felt. The urine contained albumin and occasionally a trace of blood and casts. The abdomen was tender in the epigastric and right iliac regions, and there was occasional vomiting. The child was treated with two injections of horse-serum without any improvement, but recovered and was discharged with the urine still albuminous. Case 2 was a boy, aged 6 years, suffering from abdominal pain and vomiting. There were purpuric spots all over the extensor aspects of the limbs. The abdomen was not tender. The urine contained albumin and occasionally blood. In hospital he was suddenly attacked with abdominal pain, and the abdomen was tender in the left lumbar region. The pain continued on and off for nearly two months, occurring in crises every two days. Blood was found in the stools during most of this time. Later the face became puffy, especially the lips and eyelids, but the child began to slowly improve. The treatment was at first calcium chloride, and later three injections of horse-serum. Two fresh groups of purpuric spots appeared while the child was taking calcium. The third case, under the care of Dr. Charles Bolton, was a boy, aged 6 years, who came into hospital with severe pain and passing blood in the stools, with a measly non-purpuric rash and coryza. The next day he vomited and passed blood and mucus by the rectum. The abdomen becoming distended, it was thought that intussusception might be present, and the abdomen was opened, but none found. There were flecks of lymph in the peritoneum with some evidence of general peritonitis. He died next day. At the necropsy there was general peritonitis, and on the small intestine were about thirteen hæmorrhagic extravasations about the size of peas and projecting on both outer and inner surfaces of the intestine. About a foot from the iliac valve there was a collection of much larger hæmorrhage. The small intestine was distended with gas, and the large intestine as far as the splenic fissure, where for about six inches it was quite dark from diffuse hæmorrhage, thickened, and looked almost gangrenous. The diagnosis lay between measles and Henoch's purpura, the suspicion of

intussusception not being verified. Dr. Parkinson thought it was a case of purpura, but the absence of blood and albumin in the urine was unusual. The case supported a suggestion of Mr. Hugh Lett made in the 'Reports of the Society for the Study of Disease in Children,' that it is advisable not to operate for intussusception in a case of Henoch's purpura unless an abdominal tumour could be felt.

Mr. Hugh Lett said the presence or absence of intussusception in Henoch's purpura was very important. He had reported a case in which intussusception had developed during the illness and was reduced by operation. Seventeen days later another intussusception occurred, and the child died. He thought that the crucial feature to be relied upon was the presence of a sausage-shaped tumour, and that there should be no operation where a tumour was not felt. He had operated upon twenty-eight cases of intussusception, in all of which he felt a tumour either from the abdomen or *per rectum*. In two or three of them he could not feel it without an anæsthetic. Surgical operation in Henoch's purpura was a very serious matter, and in some cases the patient had died of hæmorrhage from the wound. If he saw another case of undoubted intussusception with purpura he would be inclined to try injection before operation.

Dr. Langmead said that a tumour might be present simulating intussusception, but due to extravasation of blood; and Dr. E. I. Spriggs referred to another case showing this condition.

The Chairman thought the term "Henoch's purpura" should be dropped, as the disease was simply purpura hæmorrhagica with abdominal symptoms.

A Case of Hyperplastic Tuberculosis of the Rectum in a boy, aged 10 years, was shown by Mr. Lockhart Mummery. There was no pain or straining, but the bowels were loose, being opened as many as twenty times a day. There was no vomiting or wasting, and the appetite was good. Large masses could be felt projecting in the rectum from all sides, irregular in surface and shape. With the sigmoidoscope several ulcers about a third of an inch in diameter were seen, and had the appearance of tuberculous ulcerations. The whole of the mucosa of the rectum was red and swollen. The ulceration quickly cleared up as the result of daily irrigation with weak antiseptics.

A Case of Scurvy in a boy, aged 1 year and 4 months, was shown by Dr. George Carpenter. He had been reared on coarse milk and barley-water for the first three months, and afterwards he had been given bread and milk, etc. He was admitted to hospital with a history of two falls, and was found to have a bruise over the right eye and a hæmatoma of the scalp and a clavicle fracture. After twelve days he was discharged as cured and continued in good health for six weeks, when he was readmitted with a swelling in the left arm without any history of injury. The swelling extended from the shoulder on to the forearm. There were also marks of old hæmorrhages on the backs of both feet. A skiagram showed a partial separation of the lower epiphysis of the humerus. He had improved very much on a suitable diet. No special treatment in regard to the separation of the epiphysis, and the child quickly recovered and left the hospital quite well and with a freely movable elbow-joint. The separated parts had been moulded together again by callus, and the bones of the arm and forearm when extended were in the same straight line. Dr. Carpenter said the case could be viewed according to fancy either as one of primary separation

of the epiphysis or as one of scurvy with epiphysial separation. He was inclined to the opinion that our views with regard to scurvy might with advantage be extended, and that cases of scurvy in infants are not infrequently admitted into surgical beds and with various hæmorrhages out of all proportion to the trauma, and which are more readily explained by a

scorbutic condition of body than by the nature of the injury, and, moreover, which readily recovered under the usual hospital dietary. May the 18th. – The child has been re-admitted into hospital once more with large bruises on his right cheek which cannot be accounted for.

A Case of Congenital Hypertrophic Stenosis of the Pylorus in a male infant, aged 5 weeks, was shown by Dr. George Carpenter. The child died the day following its admission. The stomach was sausage-shaped and the wall thickened generally. The pylorus was seven eighths of an inch long and a quarter of an inch thick; its channel admitted a No. 4 catheter.

An Infant with Multiple Congenital Malformations was also shown by Dr. George Carpenter.

Provincial Societies.

ABERDEEN MEDICO-CHIRURGICAL SOCIETY.

April the 1st, 1909.

Notes of a Case of Congenital Pyloric Stenosis were read by Dr. Dalgarns. The child, a male, was born on April the 12th, 1908. It was healthy and weighed 7½ lb. For the first three weeks nothing was noticed save that the child cried a good deal. Vomiting without apparent cause then began—seemingly more a regurgitation of food than of vomiting from sickness. The child was being fed on milk and barley-water. Various changes of diet were tried, each being followed by improvement for a day or two, to be succeeded by a return to the old symptoms. Small doses of calomel constituted the medicinal treatment. Gradually other symptoms presented themselves—obstinate constipation and peristaltic waves from left to right. On June the 7th, as the methods of relief were quite ineffectual, Mr. Marnoch performed a pyloroplasty, the child being then two months old and weighing 6¼ lb. The infant made a good recovery. Now at eleven and a half months he weighs 22 lb. 2 oz.

Mr. J. Marnoch said that he elected to do a pyloroplasty, since he held that the objections to divulsion in the adult, viz. tearing of the peritoneal coat with leakage and inefficient relief or recurrence, were equally cogent in the case of children. As between pyloroplasty and gastro-jejunostomy the former was considered to have the advantage of speed and less exposure of the abdominal contents—important points in carrying an abdominal operation in an infant to a successful issue. Difficulties were, however, met in the operation, and in reality gastro-enterostomy would have been easier. The child did well. Vomiting persisted for a week after operation and then gradually subsided. As regards the ætiology of the trouble, Mr. Marnoch held that the weight of the evidence was in favour of the congenital origin of the disease. The delay in the onset of symptoms might be explained by the theory that the hypertrophy having begun *in utero* does not reach its full extent until some time after birth. He regarded the malady as a rare one. As regards treatment he thought mild cases might do well under medical treatment, but severe ones required surgery.

Mr. J. Scott Riddell did not think gastro-enterostomy the easier operation. In the single case in which he had operated he found pyloroplasty very simple. Bunts had come to the same conclusion regarding pyloroplasty as the operation of choice. The mortality is about 55 per cent. The physician is apt to delay too long before transferring the case to the surgeon.

Dr. MacKerron considered that the question of treatment was now in a transitional stage. Previously the tendency was to believe that the only hope lay in surgery, but now in view of the many successful cases recorded that had been subjected to only medical treatment, the view was becoming more prevalent that the disease should in most cases be left in the physician's hands.

Dr. Davidson had seen twenty-one cases at Great Ormond Street Hospital. He detailed the treatment adopted then, laying stress on lavage and careful feeding as the most important factors. The child must not be handled for an hour at least after feeding. Cessation of vomiting and increase in weight

are the signs of improvement, but this is often preceded by an initial fall in weight. The continuance of the peristaltic waves is not an ominous sign. Progress is always slow and many months are needed for cure.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

Cases shown at March and April Meetings.

Juvenile General Paralysis, by Dr. E. F. Trevelyan. A boy, aged 14 years. There was progressive mental deterioration and screaming attacks. The pupils, unequal and with irregular margins, reacted sluggishly to light. There was commencing optic atrophy. The right knee-jerk could not be obtained. There was presumptive evidence of congenital syphilis.

Epispadias, with Incontinence of Urine; Cysto-proctostomy, by Mr. J. F. Dobson and Mr. J. Stewart. The patient, a boy, aged 7 years, was admitted into the Batley Hospital in May, 1908. There was complete incontinence of urine from birth, and the urethra opened on the dorsum of the penis at its root; a large catheter could be readily passed into the bladder. The urethra was exposed through a perinæal incision, and divided transversely at its junction with the bladder; the bladder was then united to the rectum just above the sphincter by a Murphy button. Union occurred with the formation of a fistula, which was closed by cauterisation at the third attempt. The boy now has control for two or three hours, and has improved very much in appearance and in health.

Two Cases of Acute Intestinal Obstruction in Children, by Mr. J. F. Dobson. E. C—, aged 5 years. Strangulation of small intestine by an omental band adherent to a caseating gland of the ileo-colic group. Intubation of the intestine, enteroplasty, enucleation of the gland.

F. F—, aged 7 years. Strangulation of the small intestine by a Meckel's diverticulum, with perforation of the intestine at the point of strangulation. Intubation and enterectomy.

Rupture of the Receptaculum Chyli, by Mr. J. F. Dobson. Patient, a child, admitted shortly after being run over by a hansom, the wheel of which passed over the chest. Some ribs were fractured on the right side. The child was very collapsed, the abdomen rigid and tender, and dull to percussion in the right loin. On opening the abdomen, which contained a small quantity of blood, a swelling was found to the outer side of the ascending colon, behind the peritoneum. On incising the peritoneum over the swelling a considerable quantity of thin milky fluid escaped; the colon and duodenum were stripped forwards, and the fluid was seen to be coming from above the inferior vena cava. A drain was placed in the cavity, from which a considerable amount of fluid escaped in the first few days following the operation.

Acute Bronchiolectasis after Measles, by Dr. Maxwell Telling. Arthur M—, aged $3\frac{1}{4}$ years; measles, with broncho-pneumonia seven months ago; since then much cough, causing vomiting. Was anæmic and

cachectic; the finger ends were definitely clubbed. On admission there was marked dulness at the left base, with some flattening of the chest, diminished entry of air and slightly increased vocal resonance. Throughout the lungs, but especially at the bases, there were many adventitious sounds, principally coarse crepitations. Under treatment there has been moderate improvement, the adventitious sounds lessening, though the dulness persists; cough is less; clubbing of the fingers is disappearing and the child is gaining weight.

Slight Chronic Jaundice in a Child; Enlarged Liver and Spleen, by Dr. Maxwell Telling. Ivy R—, aged 8 years. Jaundice, varying in intensity, for over two years (following scarlet fever). General health fair, but languid. The liver is enlarged three fingers-breadths below the costal margin, and is unduly firm. The spleen reaches the level of the umbilicus. Bowels rather loose; occasional epistaxis. No other case in the family.

Delayed Resolution in an Apical Pneumonia, by Dr. Maxwell Telling. Lilla T—, aged 14 years. On February the 1st subacute onset (about two days) of marked consolidation at right apex. From aspect of child, localisation of lesion, and persistence of temperature, the case, on admission (March the 8th), was regarded as acute pneumonic phthisis. Subsequently there was steady improvement, though signs of consolidation, without any adventitious sounds or expectoration, still persist. Temperature (mainly remittent), at first 105° F., reached normal in two and a half months. No sputum. Calmette reaction negative.

Aortic Stenosis, with Mitral Stenosis, by Dr. Maxwell Telling. Ethel F—, aged 17 years. Systolic bruit and thrill at base, with small pulse. There is also a very short diastolic murmur at second right costal cartilage. Pre-systolic murmur and thrill at apex. When eleven years old she had growing pains and sore throats; facies typical delicacy of rheumatism. This case was shown four years ago, when she first came under observation, and the physical signs are quite unchanged from what was then observed. The general health has been very fair during this period.

Double Dislocation of Patellæ, by Mr. W. Thompson. Albert P—, aged 12 years. The condition has existed as long as he can remember. His only complaint is that he walks in an ungainly fashion.

Monoplegia of Right Arm following Traumatic Asphyxia, by Mr. W. Thompson. Male, aged 15 years. Kicked in back and sent spinning forward; remembers nothing more. On evening of day of admission it was noticed that the right arm was not moved. Suffering from concussion. Face and neck blue and with petechial and sub-conjunctival hæmorrhages. He could not move arm from shoulder downwards, except for some flexion of wrist and fingers. Diminished cutaneous sensibility of arm from shoulders. Sensation has improved. Muscles of shoulder girdle paralysed, except trapezius. Deltoid, supra-, and infra-spinatus and biceps show no reaction to faradism. Extensors of arm and forearm reaction diminished. No triceps or supinator reflex obtained.

Adhesive Mediastinitis, with Dilatation and Hypertrophy of the Heart, by Dr. Wardrop Griffith. Male, aged 9 years. Pneumonia and

empyema when four, followed by scarlatina, good recovery. Shortness of breath for a year, with pain in epigastrium. Swelling of abdomen since Christmas. There is considerable enlargement of the heart but no bruits, and marked enlargement of liver with ascites. Abdominal fluid, transudative and non-inflammatory. *Treatment:* Paracentesis three times; digitalis.

General Muscular Dystrophy, by Dr. T. Churton. Male, aged 7 years, admitted March the 29th, 1909. Six months ago he had a "bad cold" (? influenza) and was in bed a month; then found to be unable to stand. March the 6th: could not feed himself; hands weak and "aching." He could not raise head from pillow (recti abdominis feeble), nor trunk from bed. Can now stand and walk, but feebly. Sensation and sphincters normal. He has never been strong. He had an attack said to have been "exactly like this" fourteen months ago, lasting three months.

MIDLAND MEDICAL SOCIETY.

March the 24th, 1909.

A Case of Chronic Joint Disease in a child, aged 14 years, was shown by Dr. Douglas Stanley. The patient was very small for her age and showed a marked degree of infantilism. The chief joints affected were those of the fingers, wrist, feet, elbows, and knees. The changes in the joints were similar to those occurring in the osteo-arthritis of adults, and had followed after a chronic vascular disorder of the hands and feet which seemed to correspond very closely with Raynaud's disease. There was no enlargement of the lymphatic glands and spleen.

Mr. Leonard Gamgee said that the appearance of the joints suggested that the condition was due to trophic lesions and not to any microbic infection.

Dr. Sawyer said that osteo-arthritis similar to that occurring in adults was the rarest of all the chronic progressive joint diseases of children, and pointed out how the condition differed from that described by Still. He said that a case of chronic syphilitic synovitis had been described recently by Mr. Boyd Barrett, but in that case there did not seem to be much evidence of the condition being due to syphilis. He asked whether Dr. Stanley had found any history or symptoms of congenital syphilis in his case.

Dr. Douglas Stanley, in reply, said that there was no evidence of syphilis, and that he considered the disease was due to trophic changes. The association of Raynaud's disease with osteo-arthritis was very significant of this.

Philadelphia Pediatric Society.

March the 9th, 1909, J. Claxton Gittings, M.D., President.

Splenic Enlargement.—Dr. H. H. Jenks showed a white child, aged 5 years, with history of cough and dyspnœa for three months. Child is well nourished, small for her age; skin lemon yellow; mucous membranes pale; respiration rapid and laboured, 44 to 50; absolute flatness and faint bronchial breathing over entire left lung except a small strip one inch in width along the left side of the spine; liver palpable 3·5 cm. below costal border in right nipple line; spleen very large, extending 11·5 cm. below costal edge in left nipple line, with notch easily felt; temperature 100° F. or less; urine shows albumin, trace, and few red blood cells. Blood count follows: R.B.C. 2,718,000; leucocytes 7000; H.B. 55 per cent.; lymphocytes 22·6 per cent.; large mononuclear 13 per cent.; transitional 8·4 per cent.; polymorphonuclear 49·6 per cent.; eosinophiles 6·4 per cent. (500 cells). No malarial organisms; no tubercle bacilli in sputum; no parasites in stools. The exact diagnosis was not decided.

Dr. F. B. Jacobs believed that this child had previously had rickets. He hardly thinks there is fluid in the child's lung, yet percussion gives one that impression. But the dulness is not changeable. While the diagnosis remains in doubt, the tumour palpable on the left side of the abdomen is certainly the spleen.

Dr. J. H. Swan said that he had been interested in the study of the blood of the patient just shown, which he was able to make through the kindness of Dr. Jacobs. There was quite a range of possibilities from which to select a name for the condition found. The blood picture might be found in malarial cachexia, in splenic anæmia, in tuberculosis of the spleen, or in malignant disease of the spleen. Splenic anæmia, or its later stage, Banti's disease, was probably the proper name to give the condition.

Dr. Jenks added that there was albumin in the urine, and blood in the sputum, urine and fæces.

The Subcutaneous Injection of Sea Water.—Dr. Theodore le Boutillier read a paper on this subject, exhibiting eight children under treatment by this method, for various diseases.

In answer to Dr. Hand's question, Dr. le Boutillier said that no tubercle bacilli had been found in the child with supposed tuberculosis.

Dr. M. B. Hartzell said that this report would have been more convincing had mercury not been used in addition to the sea-water treatment. He admitted that he could not think of taking the subject seriously.

Dr. Gittings noted that the specific cases had also been given mercury, and wondered whether all the cases had had other treatment also. The value of such a treatment can only be finally determined by such experience on the part of many observers.

Dr. A. H. Davisson asked whether Dr. le Boutillier thought these children got water by these injections that they would ordinarily obtain by drinking, did they not neglect to do this.

Dr. S. McC. Hamill asked what changes were made in the hygiene and diet of these cases at the time treatment was begun. The improved physical conditions which were evident in some of these cases were frequently

brought about by a general hygienic regulation. It is important, in determining the value of any treatment, to eliminate all possible outside influences which might have worked towards the accomplishment of successful results.

Dr. LE BOUTILLIER said that the tubercular case had been under good treatment before the sea-water injections were begun, but she had only gained weight afterward. The cases of malnutrition had been breast-fed before treatment and since also. The diet and hygiene are important and every mother is instructed in these points, whether sea-water treatment is given or not. These cases had failed to improve until the injections of sea water were given. In the syphilitic cases mercury had been given since birth, long before sea water was used; but the improvement only started after the sea-water injections.

Angioneurotic Œdema. — Dr. S. SEILIKOVITCH reported a case in an infant, aged 3 weeks, with swelling of the labia majora lasting two days; then the right side of the face swelled for one day, followed by a circumscribed swelling on both arms, remaining three days. For the next two days the child was free from swelling; then the left labium major again swelled, this time to five times its normal size, became purple and indurated. The child was apparently quite well otherwise. Three days later it refused to nurse, vomited several times, and a soft circumscribed swelling appeared on the calf of the left leg. The next day the child became cyanosed and died in a convulsion.

Dr. HARTZELL said that angioneurotic œdema was first described as a giant urticaria. It is commonly regarded as akin to urticaria, but while the latter is frequently due to articles of food or drugs, angioneurotic œdema never has been found due to any such cause. Besides, there are many cases in which no urticaria is ever found. Urticaria itches, while angioneurotic œdema is accompanied by no subjective symptoms. One of the common causes of angioneurotic œdema, beside heredity, is exposure to cold, such as going out of doors in winter, and in certain cases eating ice cream or drinking ice water will cause swelling of the tongue. The coal tar products may produce urticaria, but never angioneurotic œdema. The latter frequently occurs at night. The case reported is remarkable on account of the early age of the patient. Angioneurotic œdema may also attack the mucous membranes, even of the larynx and tongue. Diet has no effect in treatment. Sodium salicylate is of value internally, diminishing the number of attacks. Calcium chloride may be tried also, on theoretical grounds.

Dr. SILIKOVITCH added that quinine seems of value, especially when the swelling occurs periodically. He believes that the cause of death in his case was œdema of the larynx.

Infantile Paralysis.—Dr. S. H. CROSS reported a case, with complete and rapid recovery. The boy went to bed well on December the 15th, but woke during the night complaining of pain in the right knee, and in the morning it was found that he could not move his right leg. Examination showed no tenderness or stiffness; knee-jerk decreased on right side; complete paralysis of the exterior muscles of the thigh. At the end of a week he could stand alone and walk with some assistance. In spite of an attack of acute tonsillitis at this time, he continued to improve. On December the 30th the right thigh was a quarter of an inch less than the left in

circumference. By the middle of January he had perfect use of the leg and measurements were equal. On March the 8th both thighs measured twelve inches, an increase of one inch on each side, and all muscles react to the faradic current.

Dr. Herbert Fox said that exposure to cold and some of the acute exanthemata are said to predispose and to cause this disease, but this is not borne out by a study of the epidemic form. The difference between the epidemic variety and the sporadic cases of this disease consists in the greater prominence of the symptoms and signs of acute infection, the quite regular course of the epidemic type, and the fact that the paralysis more often clears up rapidly in this form. The abortive or atypical cases are numerous, and are important from a hygienic standpoint, because they are most difficult to follow. The bacterium has been found in the spinal fluid of cases both in Norway and in this country, but the injection of cultures into experimental animals has not as yet produced poliomyelitis. In a number of cases the spleen has been enlarged during the preparalytic febrile period. In the vast majority of cases studied there have been evidences of increase of spinal fluid with some pressure, but no pronounced irritative meningeal symptoms.

Dr. Gittings thought that the cause of anterior poliomyelitis would eventually be shown by the bacteriologists.

Dr. Cross, in answer to Dr. McKee's question, said that the case had not shown any irritative motor phenomena or tenderness over the nerve-trunks. No blood examination had been made.

The Surgical Aspects of Meckel's Diverticulum. — Dr. J. B. Carnett reported a case of Meckel's diverticulum contained in an inguinal hernia in a boy, aged 12 years. Attacks of constipation and abdominal pain began when patient was two months old, and recurred at intervals over a period of four months, and were ascribed to a right inguinal hernia. After wearing a truss for one year, the hernia was considered cured. When twelve years old he was struck over the right inguinal canal by a baseball. A few days later he began to have attacks of colicky pain, tympanites, and constipation; later he discovered hernia of right inguinal canal. Severity of symptoms depended on the size of the hernia, which disappeared on lying down. The right testis was found incompletely descended, and disappeared into inguinal canal on reduction of hernia.

Operation was performed three months after he had noticed the hernia. A Meckel's diverticulum having a length of two and one half inches, and a diameter of the same size as the ileum, was found in the congenital sac. The tip of the diverticulum was adherent to the sac wall. Diverticulum excised and its stump inverted into the ileum. Radical cure of the hernia by Bassini's operation. Good recovery followed, with no return of symptoms. Pathological examination of excised specimen revealed catarrhal diverticulitis.

Meckel's diverticulum is found at autopsy in 2 per cent. of human beings. In the absence of complications it does not give rise to any symptoms. The more common lesions by which it manifests itself clinically, in the order of frequency, are intestinal obstruction, diverticulum open at the umbilicus, diverticulitis and hernia. The symptoms and treatment of these lesions were then discussed.

Dr. W. F. Guilfoyle, by invitation, then demonstrated a number of specimens of Meckel's diverticulum.

Société de Pédiatrie, Paris.

January the 19th, 1909.

Dyspnœa following Nasal Installation of Menthol Oil.—A. Delille reported the case of an infant attacked with general bronchitis with acute naso-pharyngitis, for which installations of menthol oil, 1 per cent. were prescribed. The solution had just been introduced into the nose from a small spoon when the child was suddenly seized with spasm of the glottis. By means of mustard baths at 40° C. and rhythmic tractions on the tongue the spasm diminished, and at the end of a quarter of an hour respiration became normal. The author asked if the menthol were the cause of the trouble.

M. Guinon had observed several similar cases and had ceased to use menthol oil in infants; he preferred instead gomerol oil or camphor oil.

M. Marfan, who had frequently used interlaryngeal injections of menthol oil in cases of diphtheria, had met with no such accidents. He was of opinion that the child's head should be placed low but not extended.

M. Comby thought that a 1 per cent. solution was too strong, and used 1 in 300.

M. Marfan further drew attention to the difference in irritating properties when menthol solutions were made with vaseline, vaseline oil and sterilised olive oil.

Congenital Retraction of the Flexors of the Fingers.—M. Mouchet showed a child, who after a fall on the left arm without other apparent injury than a slight local ecchymosis was attacked some time afterwards with permanent flexion of the middle and ring fingers. It was impossible to extend the fingers. If, on the other hand the wrist was flexed, flexion of these fingers was performed normally. The electric contractility was normal.

Paralysis of Convergence following Scarlatina.—M. Terrien insisted on the rarity of this condition. Bilateral radial paralysis of peripheral origin had been known to follow scarlatina.

February the 16th, 1909.

Hypertrophy of Thymus and Compression of Trachea.—M. Barbier showed the organs of a child of 18 months, admitted into hospital for gastro-intestinal trouble of long standing, ending in atrophy. This child was suddenly seized with difficulty of breathing with forward projection of the sternum and lateral depression of the sides; sudden death. At the autopsy an enormous thymus extended from the base of the heart along the anterior border of the lungs. A second case was that of an infant of 6 months, having the aspect of congenital syphilis, with intense inspiratory trouble; radiography confirmed the presence of an enlarged thymus. A third case was that of a child admitted for eczema in the head, who had intense inspiratory dyspnœa and died suddenly during the night. At the autopsy a voluminous thymus caused narrowing of the trachea. The

diagnosis of such cases was difficult even with the aid of radiography, but was important with a view to the possibility of surgical intervention.

MM. Méry and Parturier related an analogous case, in which neither intubation nor tracheotomy could alleviate.

M. Marfan asked if there was compression of the trachea or of the recurrent nerves; in the latter case an intense dyspnœa with inspiratory stridor was produced, owing to paralysis of the dilatators of the glottis, and was not benefitted either by intubation or by tracheotomy, He was opposed to the idea of sudden death from hypertrophy of the thymus in the case of the eczematous infant presented by M. Barbier; he had noticed sudden death in cases of untreated eczema in which the autopsy was entirely negative.

Examination of the Stools in connection with the Biliary Functions in Infants.—MM. Triboulet and Harvier made an important communication on this subject. Insufficiency of this function is of first importance in the physiology of young infants, whether brought up at the breast or bottle-fed. To investigate biliary troubles in the living subject, a systematic examination of the fæcal material was made by diluting with sterilised water and a few drops of sublimated acetic acid. A series of colour reactions of four kinds was noticed.

1st. Rose-pink reactions, corresponding to the presence of stercobilin, a normal modification of normal pigment.

2nd. Yellow reactions (stercobilinogen); dull yellow (pigmentary acholia).

3rd. Green reactions (unmodified biliverdin, which is normal in breast-fed infants up to the age of two to four months, but abnormal in bottle-fed infants).

4th. Grey or white reactions pigmentary acholia, a very grave abnormality.

It is necessary to examine in the tubes both the deposit and the supernatant liquid, since the former may present a different colour from the latter, which may even remain colourless.

These results, compared with clinical observations, give accurate information as to the normal or abnormal trophism of the patients apart from febrile ailments, and have a relative importance more or less absolute in the prognosis of infants who are febrile. In 10 apyretic infants with normal trophism the reaction was diffuse green in very young infants at the breast; rose-coloured (stercobiline in infants at the breast or bottle fed).

In 50 atrophic subjects: in the first stage, still curable, the colour was dirty red in the deposit, the liquid almost colourless. In the second stage, feeble green in the deposit, liquid clean; prognosis grave. Third degree, grey-green to white deposit; prognosis fatal.

In 28 febrile subjects—tuberculosis excepted, from fifteen days to two years, affected with impetigo, broncho-pneumonia, erysipelas, pneumonia, measles, scarlatina, varicella, diphtheria, and indefinite diseases, the rose reaction (stercobiline) or yellowish rose (stercobilinogen) denotes normal pigmentation, and is rather a favourable sign. It has but a relative value, since a subject with normal biliary functions may succumb to other physiological disturbances (there were 5 deaths out of 15 cases with the stercobiline reaction). On the other hand, negative reactions (dull yellow or absence of colour) have an absolute value, there being 8 fatal cases in 8 observations, 2 pneumonia, 4 broncho-pneumonia, and 2 measles.

Vincent Dickinson.

Reports from Hospital Practice.

Impaired Accommodative Power in a Boy, associated with Loss of Pupillary Reflex to Light and Convergence.

(Under the care of Mr. Michael Teale in the Eye Department of the Leeds Public Dispensary.)

Rowland G—, aged 10 years, was brought to the Dispensary on February the 5th, 1908, owing to his parents having noticed that he was unable to read the letters of an ordinary book. Atropine drops were ordered, and his refraction was estimated a week later. His vision was then found to be with + 1·0 dioptre $\frac{6}{12}$ in each eye. A fortnight later he was tested with trial lenses, but as the effects of the atropine were thought not to have passed off he was sent away for another week. At the end of that time he still required + 1·0 dioptre to see $\frac{6}{12}$, and + 4·0 dioptres to read J. 1 at nine inches; he was therefore given eserine drops to use twice daily.

The boy did not again present himself until April, 1908, when the same condition was found of paresis of accommodation, dilation of pupil, with absence of reaction to light and convergence. In February last he returned to the department, and was still in the condition noted a year before. Since then he has been given glasses, to enable him to do some reading, tonics, and eserine drops, but there is no certain improvement to be noted.

The interest of the case lies in the paresis of the ciliary muscles, associated with the dilation of the pupils, which show an entire absence of reflex to light (either direct or consensual) and to convergence, the condition having persisted for at least a year and three months without known cause. So far as can be ascertained, there has been no diphtheritic infection, not even a suspicious sore throat being admitted by his mother. Apart from the unlikelihood, on other grounds, of a cycloplegic having been used surreptitiously, the prompt contraction of the pupil to eserine points to the dilation being due to pure paralysis uncomplicated by drug action. The power of accommodation seems to be about one third of normal for the boy's age, the binocular accommodative power being no better than the monocular. Neither convergence-power nor field of vision could be accurately tested, but the rough tests, which alone were possible, did not show any marked defects.

The boy is well nourished, fairly intelligent for his age, without signs or history of congenital syphilis or of serious illness or injury during his life. In all respects except his sight he is well and healthy, and the unusually persistent condition of the "ophthalmoplegia interna" remains unexplained.

Temporary Nystagmus and Divergent Strabismus occurring in a Child after a Fall.

(Under the care of Mr. Michael Teale in the Eye Department of the Leeds Public Dispensary.)

Bertha N—, aged 8 years, was seen in the Eye Department on March the 9th of this year, having fallen down twelve stairs on the previous day. There was apparently no loss of consciousness, but the child was said to have been dazed for a short time by the fall. No bruise could be found

when examined at the Dispensary, but it seemed certain that the child must have struck the left side of her head.

Shortly after the accident she complained to her mother definitely that she saw two things instead of one and that she felt dizzy. Moreover she was noticed to have difficulty in walking and standing. For these reasons she was brought for advice.

When examined her eyes showed marked rotatory nystagmus in all positions of the eyes, together with divergent strabismus and considerable loss of power of the left internal rectus, the excursion of the globe produced by its action being only about half the normal. The child looked well and had not had any vomiting or headache, but she obviously found difficulty in standing upright owing to giddiness. Examination of the fundi showed marked engorgement of the retinal veins.

The child was sent to bed and kept quiet, and on the following day, that is to say, on the third day after the fall, the nystagmus and divergence were found to have passed off. After ten days in bed, during which time she seemed to be quite well, she was allowed to get up and play about as usual. Examination of the fundi at this time showed the veins of the right eye to be of normal size but those of the left to be still somewhat full, although much less so than before.

The transient nature of such important symptoms is of considerable interest.

Abstracts from Current Literature.

Medicine.

Milk epidemics (*'The Canada Lancet,' December*, 1908).—**Goodchild.**—There is no doubt that numerous epidemics of enteric fever, diphtheria, cholera, sore throat, and scarlet fever have occurred in which milk has been the medium of conveyance and multiplication of the specific microbes. In typhoid fever the organism has gained entrance to the milk through water used for washing the milk-cans or some other source. In most of the milk epidemics of diphtheria it has not been possible to trace the source of the infection, but this is not to be wondered at, as we cannot always exclude diphtheria from a class of diseases which appear to arise at times from ordinary insanitary conditions, and also slight cases of diphtheria are very difficult to trace, being often not recognised as such. In those epidemics of scarlet fever which have been traced to milk the milk has usually been infected through human agency by a previously inadequately isolated case of scarlatina at the farm or dairy. There is no evidence of this disease being conveyed by water or air. In the United Kingdom the epidemics have long been recognised, and the view advanced by Klein and others that the cows sometimes suffer from scarlatina is not generally credited. As to diphtheria, numerous milk-born outbreaks have been reported. For example, in 1886, in England, an outbreak of seventy cases occurred, all the sick having received milk from the same dairy. With regard to tuberculosis, the bacilli may enter milk not only from tubercular cows and infected stables, but also from tuberculous people. The danger is lessened by the fact that the bacilli do not multiply in milk. It has long been known that tuberculosis can be acquired by ingestion, and that many people have been infected with tubercle through the milk of cows suffering from the disease;

the question is to what extent are children the victims of this infection. Von Behring says milk is the chief cause, but this is not usually accepted, but the British Royal Commissions considered that an appreciable part of human tuberculosis is obtained through this food, and the largest part of this is by means of milk containing tuberculous matter. In Paris thirteen school-girls became infected through the milk from a cow with a badly infected udder. Finally the Royal Commission of 1901 reported that there was no essential difference between the tuberculosis of human beings and that which affects bovine and other animals. J. Porter Parkinson.

The composition of small curds in infants' stools (*'Boston Med. and Surg. Journ.,' January*, 1909, *p.* 13).—**Fritz B. Talbot** states that in the past few years there has been much discussion as to the composition of curds in infants' stools. There have been two main contentions, the one that curds are composed of casein, and the other of soaps. From a number of observations he concludes that a stool containing small curds is of a soft, semi-solid consistency, and can be broken up easily. The smell of it varies with the reaction; when acid it has a faint penetrating acid odour; when neutral or alkaline the odour is usually offensive. These small curds are found in many clinical conditions as well as in primary gastro-intestinal disturbances. They are composed mainly of fat, mostly in the form of fatty acid and soaps. There is no evidence that they contain casein-like material, and they have, as have normal fæces, a low percentage of nitrogen. They represent the fat in the aliment rather than protein.

James Sawyer (Birmingham).

Pseudo-hypertrophic paralysis in an advanced stage (*'Glasgow Med. Journ.,' July*, 1908).—**R. Barclay Ness.**—The patient was a boy, aged 13 years, and was one of a family of six. None of these were affected in the same way as the patient. Between three and four years of age he was recognised as being in an early stage of the disease. He then had large calves, waddling gait, lordosis, and the characteristic way of arising from the supine to the erect position. The succeeding years had been marked by a gradually increasing failure of muscular power and by great wasting of muscles. At the age of thirteen years the boy showed great emaciation and general helplessness. Lying on his back he could only to a slight extent pull up and extend his legs. He could move his arms slightly, but they were quite flail-like. He could not raise himself into the sitting posture. Placed in this position his back became markedly curved (kyphosis). Any attempt with hands in the armpits to raise him by the shoulders only elevated the scapulæ and brought them together on the back, all support having been evidently lost by the wasting of such muscles as the pectoralis major, latissimus dorsi, serratus magnus, etc. He could not support himself on being placed on his feet. Both knees were partially flexed from contracture of the hamstring muscles, and could not be extended. Both feet were in the position of talipes equinus from contracture of the calf muscles. There was such weakness of the extraordinary muscles of respiration that the child could not easily by coughing clear his bronchial tubes of mucus. The life of the patient in this advanced state depended on the progress of the increasing muscular weakness and the chance occurrence of some pulmonary complication. Complete rest for any time was considered a mistake, as the muscles rapidly waste and the patient becomes gradually more and more helpless. James E. H. Sawyer (Birmingham).

Tobacco poisoning in an infant one year old (*'La Clin. Infant.,' February*, 1909, *No.* 8, *p.* 68).—**J. Lemaire** reported this case to the Société de Pédiatrie. The child found a "Three Castles" cigarette and ate it. At 6 o'clock he took his evening meal, and then was put to bed and slept for an hour; he then woke, and cried and vomited; diarrhœa, pallor, and cold sweatings followed. At 9 o'clock he was prostrate and drowsy, very pale, with cold extremities, but no disturbance of pulse or respiration; from time to time there was yawning, followed by nausea and vomiting, in which were found particles of tobacco. Diarrhœa continued, many particles of tobacco passing with the stools. Tea with a small quantity of brandy was given, and warmth applied. About midnight he went to sleep, and woke the next day quite well. Authors describe two forms of tobacco poisoning. 1st. Acute, but slight, with sense of malaise, nausea or vomiting, headache, vertigo, cold sweatings, and faintness. 2nd. Acute, severe form, with headache, vertigo, disturbance of sight and hearing, slow pulse, dyspnœa, vomiting, weakness and stupor, then profound collapse with intense dyspnœa, and death by asphyxia. The cigarette eaten contained about 1 gr. 20 mg. tobacco, corresponding to nicotine mg. 2·04.

VINCENT DICKINSON.

Congenital pigmentation of the scrotum (*'La Clin. Infant.,' October*, 1908, *No.* 20, *p.* 616).—**M. Fayolle** describes the case of a child, aged 11 days, who presented a hyper-pigment action uniformly distributed on the skin of the scrotum, which was of a dark-brown colour. The zone of pigmentation was limited behind by the insertion of the scrotum or the perinæum; at the sides it ceased at about 1 centimetre from the genito-crural furrow; in front it disappeared about 5 millimetres below the root of the penis. This organ, with the prepuce, was not coloured. There was no other pigmentary mark on the surface of the body nor on the mucous surfaces, and the general pigmentation of the skin was normal. There was no other malformation. The case seemed analogous to three others shown at the Société de Pédiatrie by M. Variot, in which the pigmentation was due to granules of melanin localised in the deep layers of the Malpighian stratum, without any change in the dermis, identical with the skin of a negro. Congenital pigmentation of the scrotum in white races is not very exceptional, and is an exaggerated and precocious manifestation of the pigmentation which is normal in this region of the skin after puberty.

VINCENT DICKINSON.

On changes in the milk globules (*'Rev. d'Hyg. et de Méd. infant.,' vol.* VII, *No.* 4, 1908, *p.* 309).—**G. Alessi** and **E. Carapelle,** after making a comparative series of experiments on goats, cows, and women during and after gestation, both in health, and, with regard to the latter, during certain diseases such as malaria, cystitis, morbus cordis, and tuberculosis, have obtained the following results. The morphological changes met with may be divided into three principal classes: the first and most usual is the disappearance or deficiency in fatty substance, the milk globules having little or no fat in them. In globules in which the fat is simply diminished it occupies a segment of the cell, and here it is either heaped up in the form of granules or disseminated in the form of nodules throughout the cellular element. This phenomenon is associated with all the organic conditions, physiological and pathological, in which the elaboration and utilisation of fat are invoked to take part in the various organic activities in the formation

of milk. During pregnancy, as the destruction of fat is gradually progressive, the impoverishment of the cells never goes so far as complete disappearance, but the galactophores become small zones of protoplasm, much reduced in size and without definite shape. Similar phenomena are met with in cases of wasting in nurses either due to deficient food or to diseases which cause general lowering of tone. The second class of changes in the milk is connected with the production of giant galactophores under the influence of physiological and pathological conditions. These giant cells appear in the milk at the end of gestation, and are found immediately after parturition; they also make their appearance in the milk whenever the organism is subjected to morbid intoxications, intestinal or tubercular. One means of recognising physiological giant cells is the yellow tint of the granules they contain, and which is present in all cases, thanks to an almost normal butyric refraction. A third class of changes consists in the appearance of a viscid substance in the milk, which causes a tendency for the globules, whether normal or abnormal, to agglutinate. This condition is concomitant with the other changes in the milk. Besides these changes which are recognisable by the microscope, there are special conditions in which the milk may become harmful to sucklings by diminishing organic resistance and creating a morbid susceptibility. These cannot be due to the passage into the milk of toxic substances taken by the nurse or produced in her by characteristic pathological conditions, neither can they have any connection with the presence of more or less hypothetical ferments in the milk; they are simply the outcome of cytological changes in the elements of the milk, and emphasise the direct relation which exists between changes in the milk globules and disturbances in the health of the nursling.

VINCENT DICKINSON.

Three attacks of scarlet fever (*'Monats. f. prakt. Derm.,'* 1908, *p.* 224).—**Kurson** records a case in a boy who had a first attack on November 4, 1904, a second on January 4, 1905, and a third on April 3, 1906. On each occasion the disease ran a typical course (eruption, follicular tonsillitis, pyrexia and desquamation), and was followed by no complications.

J. D. ROLLESTON.

Scarlatiniform eruption in Vincent's angina (*'Zentralb. f. innere Med.,'* 1908, *p.* 629).—**P. Eisen.**—A girl, aged 6 years, was admitted into hospital with the diagnosis of diphtheria. Clinical and microscopical examination showed the existence of Vincent's angina. A scarlatiniform eruption was present on admission on the trunk and limbs, but disappeared the following day. Temperature 100° F. The child was kept under observation for seven weeks, but showed no trace of desquamation. The diagnosis of scarlet fever was rendered improbable by (1) the transient character of the eruption, (2) the complete absence of desquamation, (3) the slight degree and transient character of the pyrexia.

J. D. ROLLESTON.

Diphtheria at the Hôpital Hérold (*'Bull. et Mém. de la Soc. méd. des Hôp. de Paris,'* 1908, *p.* 308).—**Barbier, Boudon** and **Pélissier.**—During the years 1904–1907 inclusive, 890 cases of diphtheria were admitted into the Hôpital Hérold, in Paris; 99 died—a mortality of 11·1 per cent. On eliminating those cases which died within twenty-four hours of injection as well as those in which death was independent of diphtheria the fatal cases

were reduced to 48—a mortality of 5·7 per cent. Barbier thinks that severe diphtheria is due to delay in the administration of antitoxin, and illustrates this by the fact that when the disease occurs in several members of the family the first child to be attacked, who, as a rule, is not injected till late, suffers most, and may be the only fatal case. Illustrative cases are given, as well as numerous tables dealing with monthly admissions, the character of the attack, intubation, complications, and superadded diseases.

J. D. Rolleston.

Hæmoptysis in children (*'Journ. de Méd. de Bordeaux,' No.* 43, 1908, *p.* 677).—**Rousseau-Saint-Philippe.**—Hæmoptysis is rare in children. It is found (1) in whooping-cough. In most cases the blood comes from the turgescent nasal fossæ, but it may sometimes be due to broncho-pneumonia. (2) In cases of foreign bodies lodged in the deep respiratory passages. (3) As a supplemental hæmorrhage in girls between the ages of 7 and 8 years, often alternating with leucorrhœa. (4) In pulmonary congestion, influenza, and, rarest of all, in pulmonary tuberculosis.

J. D. Rolleston.

Diphtheria in Buda-Pesth (*'Centralbl. f. Laryng.,'* 1908, *p.* 444).—**S. V. Gerlóczy.**—The case mortality among 558 cases treated with antitoxin at St. Ladislaus' Hospital in 1906 was 11·6 per cent. Intubation was performed in 66 cases, of whom 35 recovered. Laryngeal ulceration following intubation occurred in 6, and in 2 a perilaryngeal abscess. Secondary tracheotomy was performed in 4 cases, all of which were fatal. Palatal and laryngeal palsies were noted in 21 cases; 59 cases suffered from a mixed infection, in most cases scarlet fever. J. D. Rolleston.

Diphtheria in Havre (*'Thèses de Paris,'* 1907–1908, *No.* 380).—**Chevrel.**—The diphtheria case mortality at the Havre Hospital prior to the introduction of antitoxin in 1894 was 56·9, but since then has been considerably reduced. Thus the mortality among 595 patients who have been treated at this hospital during the last ten years was 14·3 per cent. Even this figure might have been much lower had not serum treatment been delayed, partly through the fault of the parents and partly through that of the family doctor. Of 88 deaths 32 took place within twenty-four hours of admission. Among the 213 aged from 0–2 years the mortality was 22·0 per cent., while among 382 between 2 and 15 years it was 10·7 per cent. 248 intubations were performed and 21 tracheotomies. The prophylactic injection of all young children who had been in contact with a case of diphtheria is recommended. J. D. Rolleston.

The sequelæ of scarlet fever (*'Jahrb. f. Kinderheilk.,' Bd.* 65, 1907, *Erg.-Heft. p.* 132).—**B. Schick.**—In this important paper, which is based on the study of 1692 cases of scarlet fever, the following sequelæ are discussed. (1) Post-scarlatinal fever: In the period comprised between the twelfth day and the seventh week, most frequently in the third and fourth weeks, a rise of temperature, usually without constitutional disturbance, occurs, for which neither at the onset nor later is any abnormal condition of the organs to be found; (2) Rheumatism: As a rule this occurs towards the end of the first week or in the course of the second, and may be associated with endocarditis, the onset of which is often insidious. The fever accompanying endocarditis is usually remittent, and ends by lysis. In all Schick's cases of endocarditis

the initial attack had been mild. Rheumatism occurring later than the second week is rare. Schick had seen only four such cases—three in the third and one in the fourth week. (3) Secondary adenitis: This may occur as an herald or as an accompaniment of nephritis and also as an independent sequela. It subsides long before and is more frequent than nephritis. Nephritis and secondary adenitis do not occur before the twelfth day or later than the sixth week, most cases being found in the third or fourth week. (4) Relapses: Schick has collected 72 cases, including 13 personal ones. Like the other sequelæ of scarlet fever they occur most frequently in the third or fourth week. It is doubtful whether the initial attack and the relapse are to be attributed to the same infection, or whether the relapse owes its origin to a fresh infection from without. Schick, like Henoch, thinks that the scarlatinal virus has not been completely eliminated by the primary attack. In discussing the cause of the interval between the primary symptoms of scarlet fever and the appearance of the above sequelæ, Schick suggests that at the usual time for the onset of sequelæ the organism has a diminished power of resistance or else is super-sensitive. This period of diminished resistance or of super-sensitation lasts from the end of the second week till the seventh week, and is most marked during the third and fourth weeks, after which the tendency rapidly diminishes. The hypothesis of a specific sensitiveness of the organism after scarlet fever has an analogy in other morbid processes, *e. g.* in typhoid fever and in the serum disease.

J. D. Rolleston.

Blood-pressure in scarlet fever (*'Bull. de la Soc. de Péd. de Paris,'* 1908, *p.* 102).—**P. Nobécourt** and **L. Tixier** studied the arterial pressure with Potain's sphygmomanometer in 33 scarlet fever patients of both sexes, whose ages ranged from 2 to 16 years. They found that, as a rule, the pressure sinks from the beginning of the disease until the sixteenth day, that less frequently it remains stationary, and that in a few cases it rises. After the sixteenth day it usually rises again, while in a few cases it remains stationary. Change in diet, the character of the attack and the presence of complications have no appreciable influence in altering the pressure.

J. D. Rolleston.

Congenital laryngeal stridor (*'Arch. of Pediat.,'* 1908, *p.* 607).—**A. W. Myers** records a case in a female child whose respirations had been very rapid since birth. When she was a week old the respirations became laboured, and a crowing sound was heard with inspiration. Stridor became more marked, the inspiratory difficulty increased and bulging forward of the sternum occurred on inspiration. There was no cough nor cyanosis. An irregular quadrilateral mass corresponding to the thymus was outlined by percussion behind the upper part of the sternum. The larynx was normal. The child was subjected to X-ray treatment for three months. Steady improvement occurred, while the size of the thymus diminished. Two months after the treatment had been stopped the thymic dulness had quite disappeared and the respiration was normal. There was a slight tendency to pigeon-breast, which subsequently became less. J. D. Rolleston.

Gangrene of the skin in scarlatinal rheumatism (*'Berlin. klin. Wochenschr.,'* 1908, *p.* 1345).—**Heubner.**—A boy was taken ill with mild scarlet fever on December 21. Secondary adenitis without nephritis occurred in January. Three days later he developed violent pain in the

knees and then in the elbows, fingers, and wrists. At the same time reddening of the skin appeared in various areas, first on the right elbow and then on the back of the right hand and buttocks. On January 17 the skin over the right elbow-joint became gangrenous, but none of the other reddened areas became similarly affected. The gangrenous area, which was 9 cm. long and 8 cm. broad, separated by February 2. When seen five months later the wound had almost completely cicatrised. The joint movement was free. According to Heubner no similar case has been recorded. As a rule, post-scarlatinal cutaneous gangrene is either located in the neck, when it is secondary to a diphtheroidal condition of the fauces, or is the result of embolism. In the present case Heubner excludes embolism owing to the extensive network of vessels which supply the skin of the elbow, and regards the gangrene as due to a vaso-motor disturbance of the skin, a slighter form of which sometimes accompanies scarlatinal rheumatism.

J. D. Rolleston.

Recurrent herpes of the cheek (*'Bull. de la Soc. de Méd. de Rouen'*). **E. Delabost** showed a boy, aged 11 years, with a large solitary vesicle on the front of the right cheek. Though there was only a single lesion instead of a cluster of vesicles, the diagnosis of recurrent herpes was made, since Delabost had treated him twice before for facial herpes, and the father stated that every year since birth the child had presented a crop of herpes in exactly the same situation, and about the same time of year. Two miscarriages had preceded the birth of his child, but no signs of congenital syphilis were present (*cf.* British Journal of Children's Diseases, 1907, p. 502).

J. D. Rolleston.

Note on variations in the composition of human milk (*'Bull. de le Soc. de Péd. de Paris,' May*, 1908).—**Barbier** and **Masere** have made some very important observations on this subject. Their conclusions, derived from numerous analyses of the milk of nursing women are: (1) there is no general composition of the milk of women at different ages; (2) the composition of the milk in the same women varies at different hours of the day; these variations follow a well-marked curve; (3) the composition of the milk can be changed by alterations in the diet. With nursing women under same conditions of food, etc., some striking changes are found in the milk at different ages. Lactose is fairly constant in quantity, but the caseine and fat vary considerably, *e. g.* in the latter from 25·10 per cent. to 43·30 per cent., 70·65; the caseine from a minimum of 6·96 per cent. to a maximum of 19·50 per cent. As to the effect of alterations in diet the authors cite this case. A breast-fed infant, aged 3 months, commenced to suffer from dyspeptic troubles. The milk was found to contain excess of caseine; after various changes in suckling, meat was entirely left out of the mother's diet. In five days the infant, who was losing weight, now put on 260 grammes. On adding meat again the rate of increase in weight was diminished, to go up when meat was again left out. The writer admits that there are probably many factors in the dyspepsia of sucklings, but he believes that in some cases it may be due to mothers' milk. This should always be analysed and attempt made to correct it by alterations in her diet.

M. D. Eder.

On the existence and causation of rickets (*'St. Petersb. med. Wochens.,' July* 9, 1908).—**Jürgensohn,** after a detailed account of the

symptoms and chemico-physical analysis of human and cows' milk, states that rickets is a disease conditioned by the feeding. From a chemical standpoint the food is at fault, due to a disproportion between the osmotic pressure and the electrical conductibility. In consequence we find increased vascularisation, and more especially changes in absorption and exudation, as seen, for instance, in the bones, the brain, and the galvanic super-excitability of the nerves. M. D. Eder.

Remarks on two cases of hæmorrhage in new-born children (*'Austral. Med. Gaz.,' August* 20, 1908).—**Morton's** first case was a female child who had profuse bleeding when forty-nine hours old; death ensued in nine hours. At the post-mortem a fresh clot was found in the duodenum, where there was a perforation about an inch above the opening of the bile-duct. The stomach was healthy. The mother had been known to bleed for thirteen hours from a tooth extraction, and her first child had bleeding from the bowel on the first day of birth. The second case occurred in an infant, aged 48 hours, and was of similar nature—bleeding from the mouth and slight ecchymosis on one eyeball; the infant recovered. Here there was no suggestion of hæmophilia. M. D. Eder.

The immediate treatment of infantile paralysis (*'Intercol. Med. Journ.,' August* 20, 1908).—**MacKenzie** regards the proper treatment of the muscle as the solution of the difficulty. He places the muscle at rest. Its work is resumed very gradually, preventing at the outset any motile tendency. Then he places the arm in a splint, elevated at a right angle, with slight supination of the forearm. In a case with both quadriceps extensor muscles affected a double Thomas's splint was used. With early treatment recovery is almost certain. M. D. Eder.

Rubella—a new diagnostic sign (*'La Seman. Méd.,' July* 30, 1908).—**De Leon** maintains that a blood examination will differentiate rubella from measles or scarlet fever. In rubella there is (1) hipoleucocytosis, which reaches its height during the eruptive stage; (2) mononucleosis, which also reaches its height during the eruptive stage; (3) eosinophiles are much decreased during the eruption and somewhat increased during convalescence. In measles and scarlet fever there is, on the contrary, polynucleosis.
M. D. Eder.

The conjunctival reaction for tuberculosis (*'La Medicina de los Niños,' April,* 1908).—**Vargas** regards this test as the safest and easiest in children. He recommends that the tuberculin be diluted 1 in 200 instead of the more usual 1 in 100. One or two drops are instilled in the inner canthus. The reaction commences some four or five hours later; at first a slight hyperæmia of the caruncle and inferior palpebral conjunctiva which spreads to the bulbar conjunctiva; later there is lacrimation and fibrinous exudation, especially in the lower sac. After twenty-four hours the symptoms abate, and disappear entirely within forty-eight hours. The test should be applied to both eyes. In seven cases where tuberculosis was recognised clinically a positive reaction was obtained in twenty-four hours.
M. D. Eder.

Chronic family acholia (*'Med. Press,' August* 26, 1908).—**Pollak** showed, at the Gesellschaft für Innere Medizin at Vienna, a girl, aged 8 years, with all the symptoms of icterus affecting the skin, sclerotics, and mucous

membrane. In addition the spleen was greatly enlarged, extending for two inches below the costal margin, and was hard and resistant. The urine showed no trace of bile, although urobilin and urobilinogen were present in large quantities. The stools were not acholic and seemed normal. The jaundice was a family characteristic, as the grandmother, mother and other sisters were similarly affected. T. R. Whipham.

Examination of the stools of infants (*'Interstate Med. Journ.,' December*, 1908).—**Zahorsky** states that it is becoming generally recognised that the so-called curds in the stools of infants are not casein coagula but soaps composed principally of the fatty salts of calcium. In appearance the curd composed of soaps is more granular, and it is readily crushed by a spatula. It does not, however, become tough and leathery after several hours' immersion in strong formalin like the casein coagulum. Calcium soap is almost entirely soluble in absolute alcohol acidulated with 10 per cent HCl, whereas casein curd is not. From masses in the stools the fats and soaps may be dissolved by petroleum ether, hot water and acid alcohol. After successive washings a small residue remains, consisting of bacteria, cells, mucus, and rarely casein. Tincture of iodine and carbol fuchsin will readily stain the curds; those consisting of soaps are easily decolorised by alcohol, while casein retains the stain. After a large series of tests the author is convinced that casein coagula in the stools are very rare. The colouring matter in yellow stools is chiefly bilirubin, which can be extracted with chloroform. Chloroform, however, does not dissolve the green pigment of green stools. This can be removed by acidulated alcohol and is probably biliverdin. The oxidation of bilirubin to biliverdin probably depends upon the action of micro-organisms. In like manner it is the action of bacteria which reduces the yellow bilirubin to the white hydrobilirubin, which forms the principal pigment in light and clay-coloured stools. This occurs after the seventh day in artificially fed babies. If a concentrated solution of corrosive sublimate be added to fresh fæces containing hydrobilirubin a peculiar red discoloration is produced, thus differentiating between suspected acholia and the light stools of so-called milk indigestion. T. R. Whipham.

Pathology.

A case of anæmia in an infant connected with the growth of a prelumbar tumour (*'Bull. de la Soc. de Péd. de Paris,' May*, 1908).—**Ribadeau-Dumas** and **Camus** report the case of an infant, aged 1 month, who was seen on account of jaundice. On examination an abdominal tumour was found occupying all the abdominal region. A blood examination showed some anæmia with hyper-leucocytosis due chiefly to polynuclears. The child died three days after admission. A post-mortem was made; all the organs were normal, although displaced by the tumour. This weighed 500 grms., was the size of a fœtal head at term, and was bound to the right lumbar fossa and spine; it covered the right kidney and passed the median line. The tumour was on the whole extremely vascular; histologically it was a teratoma, a neoformation of Malpighian epithelium, with cartilaginous and osseous plaques. Schaudinn's treponemata were absent, nor were there any other signs of syphilis. The authors conclude that the anæmia was due to the teratoma and followed the hæmorrhages which were found at the autopsy.
M. D. Eder.

Researches into the hæmoglobin content of tubercular children (*'La Pediat.,' October*, 1908, *No.* 10, *p.* 723).—**Carlo Lorenzi** contributes an extensive paper on this subject based on repeated observations on sixteen cases, which are fully described and the results tabulated. The results show that (1) the number of red corpuscles diminishes in proportion to the gravity of the illness and rises when an improvement in the general condition occurs. Alteration in form is shown by more or less marked frequency of microcytes with or without poikilocytosis. (2) The hæmoglobin content is relatively below the number of red corpuscles. Oligochromæmia becomes more marked with the advance of the disease, and is usually more marked in the marasmus of chronic forms. It improves with the general condition. (3) The relative amount of iron remains always below the corresponding amount of hæmoglobin. This inferiority is more marked when the disease is progressing, and tends to disappear, on the other hand, when the acuteness of the disease diminishes. (4) The globular value, calculated with respect to iron, is always inferior to that of the hæmoglobin, but their variability is not always proportionate, although they are both in relation with the course of the disease and the general state of the patient. (5) The author's researches in a general way lend support to the theory of Bard with regard to variations in the quality of the hæmoglobin, and he is of opinion that in infantile tuberculosis the alterations in the relation of iron and hæmoglobin are chiefly referable to a condition of hypohæmatopoiesis. VINCENT DICKINSON.

Therapeutics.

Necrotic angina and perforation of the palate in scarlet fever (*'Thèses de Paris,'* 1907–1908, *No.* 139).—**F. Langlais.**—This thesis contains the histories of fifteen cases, five of which have hitherto been unpublished, of necrotic angina and perforation of the palate during scarlet fever in children whose ages ranged from 11 months to $8\frac{1}{2}$ years. These complications are peculiar to cases in which there is profound intoxication. Nasal discharge, with ulceration of the nostrils and ulcerative lesions of the labial commissures, which bears some likeness to perlèche, but more closely resemble the rhagades of congenital syphilis, are frequent concomitant phenomena. Contrary to what occurs in syphilis, perforation of the palate in scarlet fever is not manifested by any functional symptom. The voice is not nasal. Bacteriological examination of the ulcerative lesions usually shows diplococci, never anaërobic organisms as in gangrenous angina. The prognosis is grave. Of the fifteen cases only four recovered. Treatment is usually of no avail. J. D. ROLLESTON.

Otology, Laryngology, and Rhinology.

A case of gonococcic otitis (*'Monatschr. f. Ohrenheilk.,'* 1907, *p.* 436).—**Reinhard** relates the case of a child, aged 14 years, who was suffering from gonorrhœal ophthalmia, and developed a discharge from the right ear; the pus was profuse and creamy white. On acetic agar Gram-negative diplococci were found. Rapid healing followed irrigations of permanganate of potash 1 in 5000, and instillations of 1 per cent. protargol.

MACLEOD YEARSLEY.

Acute poliomyelitis following tonsillitis (*'Boston Med. and Surg. Journ.,' October* 15, 1908).—**Kendall Emerson** describes the case of a boy, aged 8 years, who got very wet in a shower at a time when he was very tired. Next day he had high fever and sore throat. He passed through an attack of tonsillitis, with rather extreme toxic symptoms, cultures showing a mixed infection without diphtheria bacilli. Recovery was prompt, but five days after the onset of the tonsillitis he complained of tingling in the left hand. This extended to the forearm next day, and to the shoulder the day following. It was accompanied by headache, becoming more severe, and extending down into the posterior cervical region. The third day he was feverish, with the head retracted and severe pain in the left arm. His attitude and appearance suggested meningitis. It was not until five days later that there was paralysis of the deltoid and upper arm muscles, and two days later there was no power in any muscles of the arm or forearm save extremely weak flexion of the fingers. The points of interest in the case are the relation of the tonsils as a point of entry and the very gradual onset of the paralysis. MACLEOD YEARSLEY.

Laryngitis stridulus (*'Münch. med. Wochens.,' No.* 41, 1908).—**Rahner,** as the result of laryngoscopic investigations during and after an attack, casts doubt on the explanation that the night pseudo-croup of children is a spasm of the larynx, and holds that an œdematous swelling of the subglottic tissues is the cause of the condition. J. E. BULLOCK.

Surgery.

Imperforate anus (*'Arch. of. Pediat.,'* 1908, *p.* 678).—**E. B. Hodge** reports a case in which the rectum communicated with the prostatic urethra in a boy, aged 6 days, who was admitted into hospital with a greatly distended abdomen. The bowels had not acted since birth, but some black material had come from the urethra. The urine was greenish at first, but became clear towards the end of micturition. On admission no trace of the anal site was found. At the operation, which lasted fifteen minutes, a median perineal incision in front of the coccyx was made without an anæsthetic. At the depth of an inch the rectum was found, incised, and sutured to the skin. Improvement followed, but death occurred owing to the mother refusing to nurse him. J. D. ROLLESTON.

School Hygiene.

School hygiene (*'Austral. Med. Gaz.,' July* 20, 1905).—**Evans** observed that all class-rooms are too small for the number of pupils; they are insufficiently ventilated and improperly lighted. A growing child needs as much air-space as a full-grown adult. He recommended the pavilion plan of building with windows and doors on eastern and northern sides; schools should be one story high. Artificial ventilation was necessary, and light should fall on the left side of pupil. The Sheffield system of desks was the best, and a vertical style of writing less likely to produce deformities than the slanting one. No lesson should exceed half an hour, and there must be plenty of intervals. He recommended the teaching of hygiene with lessons on suitable food, the dangers of intemperance and tobacco. Medical inspection and its possibilities was dealt with in detail, and he considered it necessary that every secondary school should have a medical officer.

M. D. EDER.